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On "The Objectivistic Dogma in Scientific Methodology"

By

P. S. Naidu

(Annamalai University)

"But the strangest discovery was that this orderliness in Nature, and this intelligence in Man, seemed to have been specially created to play partners in a kind of cosmic cotillion of rationality. Mind made laws of reason; Nature obeyed them."

Dunne: *The Serial Universe*, p. 13.

Law in the scientific sense, declares Karl Pearson, is "essentially a product of the human mind and has no meaning apart from man. It owes its existence to the creative power of his intellect. There is more meaning in the statement that man gives laws to Nature than in its converse that Nature gives laws to man."

Grammar of Science, p. 87.

I

THE DOGMA STATED

Science is purely objective. In contradistinction from the disciplines generally known as the humanities, it rules out rigorously the individual bias of the investigator. History, sociology and even archæology are coloured with the predilections of the historians, sociologists and archæologists. These view the world from a particular standpoint. Science is standpointless. Human temperament plays no part in scientific research. Science presents to us real reality—reality as it really is—as different from the apparent reality presented by the humanities. In reconstructing truth the historian and the archæologist have to depend upon records which are coloured, and in interpreting these records they introduce a further subjective element which is bound to vitiate their judgments. The facts of science, on the other hand, are purely objective. They are completely free from the distorting effects of human perspective.

THE "SPECTATOR THEORY" OF SCIENTIFIC METHODOLOGY

The belief in the objectivity of the facts of science has resulted in, what may be described as, the *spectator theory* of scientific methodology. In recording the results of his observation, both controlled and uncontrolled, the scientist is ever on his guard to see that his individual prepossessions and peculiarities do not play any part. He effaces himself so completely that, for all practical purposes, we may take it that his mind registers facts as faithfully as a photographic plate. The camera tells no lies. It may be relied upon without reservation, while our eyes are unreliable. The observation of the scientist gives results that are as trustworthy as those yielded by careful photography.

An eminent astronomer says that the scientist looks upon the object of his observation as "something entirely detached from and external to himself; something which he could study and explore from a distance as the astronomer studies the surface of the sun through his telescope, or the explorer the desert from his aeroplane." The laboratory is merely an observatory, and the mind of the observer is a photographic plate. The controlled experiments of the scientist introduce no more interference into the facts observed than do the astronomical telescopes into the sun and the moon.

THE "SHERLOCK HOLMES" ATTITUDE

The objectivity of science may be further emphasised by another consideration. The attitude of the scientist is the attitude of the detective. The deed has been done; the traces are all there. The observer has only to examine them carefully in order to lay his finger on the doer. Nature does not cover her tracks. The trained observer can explore these tracks at leisure and get at their source. Further, nature is prepared to repeat herself as often as the scientist wants such repetition. That experimenters working independently of one another secure the same results under identical conditions, and that natural phenomena produce uniform effects on recording instruments that are independent of the observer, constitute strong arguments in favour of the objectivity of scientific methodology.

SCIENTIFIC REALISM

A contemporary realist says ". . . there is a world of reality quite independent of human experience, . . . a material world, a world of nature objects......a real objective world, independent of our perceptions. Science usually makes this postulate and when made it is found to yield satisfactory results."[1]

1. Patrick: *Introduction to Philosophy*, p. 364.

From *objective* facts observed in a rigorously impersonal manner, the scientist discovers the laws of nature. These laws are as objective as the facts themselves. They operate in complete independence of any perceiving mind. We have only to recall the fact that the living organism is a comparatively late comer in the scheme of evolution to realise that the laws of nature were holding sway long before the first human being was born, and will hold sway long after the last man is dead. The objectivity of the scientific law is so self-evident that a physicist once remarked that the principles of physics could be demonstrated to a person with no other sense organ but a single eye and that too colour-blind. The implication of this contention is that reality is so completely objective and utterly independent of human perception that one equipped with the barest minimum of sensory apparatus can acquire a knowledge of the physical world which is as complete as that possessed by a person gifted with the rich variety of sense organs.

The human temperament of the individual observer has no place in the observation of facts. Feeling is to be ruled out strictly from scientific inference. A judgment of feeling is necessarily individual and personal—scientific truth is not the private truth of an individual, but is objective and universal.

THE SLENDER FOUNDATIONS FOR THE OBJECTIVISTIC DOGMA

The claim of objectivity made by science requires to be examined in the light of modern knowledge. The type of naive realism outlined above, which leads to the crudest kind of materialism, needs only to be mentioned to be rejected. But only the most advanced scientific thinkers have realised that " a reality completely independent of the spirit that conceives it, sees it or feels it, is an utter impossibility." A vast majority still clings to the realistic dogma, which could be shattered to pieces by arguments drawn from the fold of science. The discipline of over-specialisation has narrowed the scientists' outlook on life.

The fallacy of standpointlessness of science may be dismissed at once. The scientist does take a stand and a very dogmatic stand too. Lockian realism and representationism have been assumed by all scientists. The positive scientist holds a very definite view regarding the external world and his relationship to such a world.

The contention of this paper is that a very large and important subjective element enters into all scientific observation and inference. The manner in which data are collected in science, the part played by mathematics in science, the causes that have led to the present *impassé* in physics, and the nature of scientific laws, will be examined. It will be shown how such an examination reveals the slender foundation for the objectivistic dogma of science.

II

THE DATA OF SCIENCE ARE SUBJECTIVE—ASTRONOMICAL FACTS

It is a commonplace observation in psychology that the simplest act of perception involves interpretation. The objective fact acquires meaning only after it has been transformed into a percept by the subjective processes of memory and interest and imagination. The materialistic physicist belittles the significance of this important psychological process. Sir Arthur Eddington says, "It is the inexorable law of our acquaintance with the external world that that which is presented for knowing becomes transformed in the process of knowing."[2] This statement deserves careful consideration because astronomy is the science where the likelihood of the subjective factor entering into the investigation of facts is least. The stupendous distances separating the observer and the observed preclude all possibility of interference with facts. Yet we find an important subjective element in astronomical observation. Astronomical facts are gathered either through direct observation (that is through the telescope) or through photographic records. In the former case there is the persistent and ineliminable *reaction-time* factor which is thoroughly subjective. As a matter of fact the reaction-time experiments in psychology owe their (historical) origin to astronomy.[2a] In the latter case the subjective element is more pronounced. The photographic-record fallacy is so wide-spread in the scientific world that it is necessary to expose its foundations. No sensitive film can record all the radiations from a given body. The ordinary photographic plate has a very narrow range, and even granting that a certain fraction of the infra-red and the ultra-violet regions could be covered by specially prepared films and specially devised instruments, we must admit that the sensitive surface exercises a selective function. Besides, before the ray of light reaches the sensitive plate it has to pass through an elaborate system of lenses and mirrors which eliminate an appreciable part of the original radiation. The photographic record (if we grant that it represents the original object) is a very limited and partial representation of the object photographed. Such an incomplete record can have no significance without the interpretation of the observer. The discontinuous dots of varying density should be synthesised by a mind conferring unity and meaning on them. The patches of light and shade (the diffraction rings) presented by the photograph are said to constitute objective evidence for the existence of a star (which for aught we know sent out the ray of light several thousands of years

2. *New Pathways in Science*, p. 7.

2a. The unfortunate Kinnebrook incident in Maskelyne's Greenwich Observatory is an example relevant to this consideration.

ago). Such objective evidence is on a par with the evidence contained in a temple inscription for the existence of a group of villages which existed five hundred years ago. In both cases the objective fact is an inference, a conceptual hypothesis, into the structure of which the subjective element freely enters.

In the modern complicated processes of recording astronomical observations a much larger subjective element is introduced. At one of the observatories in Cambridge the ray of light from a distant star (generated several years ago) after suffering reduction in the process of passing through the telescope, is concentrated on a photo-electric cell. Here it is transformed into the electrical energy. Then it is passed into a galvanometer where it undergoes a further change. Finally it comes out as the movement of a pointer on a scale. The distant star has become a pointer reading !

PHYSICAL FACTS

The models of Rutherford and Bohr continued to represent for a long time, what was believed to have been, the *real* atomic structure of matter. Now they are spoken of as conceptual models. Their place has been taken by sub-atomic entities, the electron, proton, positron, neutron, etc. These, it is claimed, are really real. The ultimate constituents (electrons, etc.) cannot be perceived. What we can possibly perceive is only the effect of their behaviour under certain conditions. The electron is made to collide with particles of water,[3] or a thin metal film, and the result of the collision is photographed. From the behaviour of the particle of water or the metal film (which is itself an inference from the photographic record) the nature of the colliding electron is inferred. Such an inference involves two large assumptions, (1) that we know all about the media of observation, and (2) that we have complete knowledge of the conditions at the moment of collision. Granted these assumptions, we find that there is still a considerable subjective element in the collection of data. The existence of the electrons, protons, positrons, etc., is inferred by a process similar to that by which we infer the existence of certain villages (in the twelfth century) presented to a temple by a certain king, which gift was recorded in an inscription on the walls of the temple, whose existence was recorded in a palm-leaf manuscript reported to have been seen by a traveller in the 17th century whose existence is vouchsafed by certain documents in the archives of the Historical Commission. We do not question the authenticity of these records, but we wish to point that this is not pure objective observation.

Spectroscopy plays an important part in modern physical research. The spectroscope reveals a series of lines on a photographic plate. Each

3. The Wilson Chamber cloud track is referred to here.

line is assigned a numerical value of a high degree of accuracy representing the frequency of the wave generating it. These values enter into the calculations which are supposed to determine the structure of the ultimate constituents of matter. But how are the wave-lengths measured ? When we examine the manner in which the observations made with the diffraction grating are interpreted, we find that the so called objective measurements of wave-lengths acquire meaning only when we read them in the light of certain concepts which are purely subjective. Even the process of measurement is guided by such concepts as the wave-front, average values, etc.

The point that is being stressed here will become clear if we consider the nature of *aether*. Sir Arthur Eddington says, " As far as and beyond the remotest stars the world is filled with æther. It permeates the interstices of the atoms. Æther is everywhere. How dense is the æther ? Is it fluid like water or rigid like steel ? How fast is our earth moving through it ? Which way do the particles of æther vibrate when an electro-magnetic wave travels across it ? At one time these were regarded as among the most urgent questions in physics ; but at the end of a century's study we have found no answer to any of them. We are, however, convinced that the unanswerableness of these questions is to be reckoned not as ignorance but as knowledge. What we have found out is that æther is not the sort of thing to which such questions would apply. Æther is not a kind of matter. Questions like these could be asked about matter but they could not be asked about *time* for example ; and we must reckon æther as one of the entities to which they are inappropriate."[4]

This is a very significant statement. What it really means is that the physicist deluded himself into the belief that æther existed independently of mind, and then suddenly discovered that its nature is similar to the nature of *time*. *The hard objective facts of physics have turned out to be merely subjective conceptual hypotheses.* No one has any illusions about æther[5] now. It is an assumption, which should be discarded when it fails to work. The protons, electrons, and positrons are also subjective assumptions similar to æther. The physicist observes certain patches of light on a photographic plate, which he correlates with other patches on other sensitive surfaces, and then argues backwards until he hits upon a hypothesis which will fit into the patches. Proceeding by the method of trial and error he reaches a concept which he dubs electron, proton or positron. Just as " æther " is merely that which undulates, so " electron " is merely that which, on collision with certain known substances,

4. *New Pathways in Science*, pp. 38-39.
5. The noun 'Æther' is derived from a verb which means 'to *undulate*'.

gives rise to certain effects. These conceptual hypotheses are the facts in the objective world of science.

In his discussion of the nature of scientific experiments which are supposed to yield objective facts, Prof. Schrödinger points out that subjective interest enters into the very composition of such experiments. He says, "We cannot close the door to the entry of subjective factors in determining our scientific policy, and in giving a definite direction to our line of further advance........ I mention this point in order to forestall the objection that from the very start a compulsory element might be attributed to the overpowering sway of objective facts. This is certainly not true, the origin of science being without any doubt the very anthropomorphic necessity of man's struggle for life."[6] Prof. Schrödinger's contention is that the scientific experiment is largely determined by subjective interests. While discussing the objectivity of the electron he says, "Do the electrons really exist on the orbits within the atom ?, is it to be answered with a decisive no, unless we prefer to say that the putting of the question itself has absolutely no meaning. Indeed there does not seem to be much sense in enquiring about the real existence of something, if one is convinced that the effect through which the thing would manifest itself, in case it existed, is certainly not observed........Our doubts seem to be confirmed in the most brutal fashion by the attitude which quantum theory forces upon us. If the claim to "real existence" be based on the possibility of at least conceiving (if not perceiving) certain observations, and if the observations in question be in principle restricted by an impassable limit, then our claims for "real existence" will be in vain, not only with respect to the particular models of the interior of the atom to which we had clung up to the present (following Rutherford and Bohr), but also with respect to any other model which is satisfactorily distinct and definite."[7]

This desperate situation is the result of the dogma that the facts of science are *objective,* of the failure of science to realise that *its objects are merely so many hypotheses in the construction of which there enters a very appreciable subjective element.*

Sir Arthur Eddington says, "........it cannot be said that the content of the universe, as it is conceived in modern physics, consists of a number of particles called protons and electrons together with waves of radiation........the content of the universe is the "fog" and the laws of physics are the laws of propagation of waves of fog—the wave equations......it is awkward to have to refer to it colloquially as fog. I shall sometimes call it "ψ," that being the symbol by which it enters into our

6. *Science and the Human Temperament,* pp. 71-72.
7. *Science and the Human Temperament,* p. 131.

equations, though properly speaking ψ is a measure of the fog rather than the stuff itself . . . We ought therefore to say that on the present view the content of the universe consists, not of particles, but of waves of ψ. But at the same time it must be realised that a universe composed of ψ waves necessarily contains a large subjective element....... We must concede therefore that 'the universe as it is conceived in modern physics' is not identical with what a philosopher would call 'the objective physical universe.'"[8] This is a vigorous plea in defence of an idealistic view of the world, and as it emanates from a positive scientist it is, (at least it ought to be), accepted by serious minded men. It was not very long ago that the metaphysician was accused *by the positive scientist* of speculating about *airy* concepts. Now the scientist speaks of the content of the universe as "*fog*."

At the close of his long argument against objectivism Sir Arthur says, "Between the universe of our experience and the universe of objective reality probability interposes like a smoke screen." After dismissing the models constructed by patient labour and admitting that physical objects are mental constructs, he still speaks of an objective reality behind the ψ waves (fog). This is typical of the positive scientist who is unwilling to give up the beautiful illusions he has built up, and so wistfully harks back to an objective world. The remedy for this tendency is to be found in psychology. A fearless psychological study of *the urge to scientific research* is bound to reveal the basis of many illusions. Prof. McDougall says, "The physicist is learning also that truth which psychologists themselves have been slow to appreciate, namely, that the scientist is not a passive observer, that he is essentially an active being, whose observing is an active intervention in the course of natural elements, an intervention governed by selective purpose; that all his most purely intellectual operations upon his data (already selected, filtered and influenced by his intervention) are similarly selected and governed by his particular special purposes."[9] The extent to which *facts* are determined by subjective interests and even by subjective desires (working sub-consciously) is revealed by psycho-pathology. Palpable objects in the external world are invisible and inaudible to the psycho-pathic. When an analytic investigation is made it is found that an intense desire working unconsciously has blotted out a part of the external world. What we call an illusion is the reality for the patient. Little do we realise the extra-ordinary hypnotic influence which common words have over our minds. These words have given a twist to our minds and, in consequence, to our world. *Space* and *time* are two of those expressions which have had a ruinous effect on our outlook. It is exceedingly difficult to conceive the space-time con-

8. *New Pathways in Science*, pp. 44-46.
9. *Frontiers of Psychology*, p. 76.

tinuum, since the two words space and time have distorted, through their mutually exclusive connotations, our vision of reality. A large dose of psychology is the only dehypnotiser to our bewitched minds.

A significant question—'What is the colour of the election?'—emphasises the subjectivity of the scientific outlook.

An aspect of scientific methodology, to which very little attention has been paid so far, is the extensive use of analogy in inductive inference. The wave concept is analogical. The language used in describing the behaviour of electricity is unmistakably analogical. The descriptive terminology of sub-atomic physics is full of analogies. And analogy is subjective.

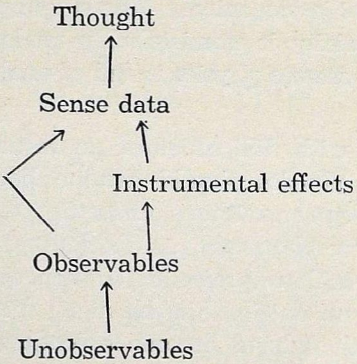
Confronted with difficulties of an insurmountable nature, Heisenberg says that physics should confine herself to the description of observable phenomena without attempting to peer into what is imagined to be behind these phenomena. His dictum amounts to this: the physicist should refrain from projecting his conceptual hypothesis into the external world, from cutting himself away from the hypotheses and then declaring that they have become objective facts. The significance of Heisenberg's view has not been grasped fully. "As Heisenberg pointed out, we have to infer the nature of the inside of an atom from what we observe coming out of it; and since the most definite things coming out of it are certain periodicities shown by the spectral lines, the most logical inference would seem to be that, whatever else may be in the atom, these periodicities are certainly there." Commenting on this in a footnote,[10] Sir Arthur says, "I have no high opinion of this argument (for after all the Bohr model did not put anything into the atom that had not been observed coming out of it)." This is a typical instance of the misunderstanding of the Heisenbergian principle. What is objected to is not the formulation of hypotheses which constitute the very life of inductive science, but the materialistic objectification of such hypotheses into external realities independent of the thinking mind. The scientist should remind himself constantly that these hypotheses (the periodicities, for example, mentioned above) contain an important subjective element.

"Heisenberg was not prepared," says Sir James Jeans, "to handicap his investigation at the outset by assuming a picture of any kind whatever to be possible. Just as the visual picture of light as waves in an ether had brought confusion into optical theory, so he thought that a picture of an atom as a structure of electrified particles was bound to bring confusion into atomic physics, as indeed it obviously was doing."[11]

10. *New Pathways in Science*, p. 47.
11. *The New Background of Science*, p. 171.

Sir James' view of the physical world fits with the main contention of this paper. He says, " Our mental activities are stimulated by sense-impressions which originate beyond our senses ; to account for these we invent an external world of objects and entities, but everything beyond our senses is pure inference............."

" The universe of the scientist may be expressed diagrammatically somewhat as follows :



All the items of the last two categories are purely inferential, but the type of inference is, of course, different in two categories. The observables certainly represent something objective, because they affect the senses of every one in the same way, and affect instruments which are independent of our individual senses, but the very existence of the unobservables is in doubt, because they do not affect our senses or instruments at all ; unobservables may represent nothing more than bad guesses. In brief, the properties of the observables are inferential, but the very existences of the unobservables are inferential."[12]

This is a fair sample of contemporary realism. As an instance of the unobservable æther is mentioned, and photon as an example of the observable. In the chain of argument it is forgotten that for the observable as well as for the unobservable the sense-datum (as transformed by thought) serves as the only guarantee for objective existence. Undoubtedly it is the subjective element which determines the structure of the observable and the unobservable. Hence the items in the scheme given above should be replaced by " conceptual hypotheses formulated by intelligence and projected into the external world."

The so called objective facts of science obtained through three or four successive stages (vide the diagram given above) of active interpre-

12 *The New Background of Science*, pp. 171-174.

tative observation contain an important subjective element. They are conceptual hypotheses framed by the observer's intelligence to fit into his observations and thereafter objectified by an illogical process.

II

MATHEMATISATION OF SUB-ATOMIC PHYSICS

From *facts,* in the experimental determination and interpretation of which subjective attitude and interest play a dominant role, the laws of science are formulated. But before the laws can be formulated the facts have to be treated in a special way. The objective data have to be conceptualised through the application of mathematics.

The application of mathematical calculation to physical facts is of special significance to the epistemologist. At the present day physical data are reduced to pointer readings, and then are detached from sense data to be treated as symbols. Schuster once remarked, "Scientific thought rests content with equations correctly representing numerical relationships between different phenomena, even though no precise meaning can be attached to the symbols used." This statement raises a whole series of questions. When a given set of physical data is represented by mathematical symbols constituting an equation to be developed and solved, is there a one-to-one correspondence between the steps of the solution and the physical process symbolised by the equation ? Is the conceptual mathematical development closely paralleled by the "objective" physical process ? A very useful mathematical concept which is used extensively in solving equations is $\sqrt{-1}$. What is the reality corresponding to $\sqrt{-1}$? In mathematical calculations, particularly in the calculus, certain *small* [13] quantities are eliminated. What is the significance of this omission ? It means that either we have spirited away the reality corresponding to the "small" quantity or we consider it non-existent for our purposes. And when we find that the solution fits into reality, we should admit that we have succeeded in introducing the subjective element into the objective world so far that a procedure determined largely by subjective considerations yields objective verifiable results. $\sqrt{-1}$ is a purely subjective concept. It is very helpful in solving refractory equations. The solution obtained by the introduction of this subjective concept corresponds to objective reality. Such a reality is certainly determined by subjective elements.

There is yet another implication in the application of mathematics to physics " . . . . differential equations may really embody more physical

13. The notion of *smallness* is subjective.

phenomena than the physicist knowingly first puts into them, for after they have been manipulated mathematically, unknown and unsuspected further phenomena may be indicated, which may then be fully interpreted by the physicist."[14] We are familiar with astronomical discoveries made in this manner. Clerk Maxwell legislated for the wireless waves long before they were known. The equations for wave mechanics were worked out fully fifty years ago. These mathematical predictions point to one conclusion only, namely, that the structure of reality is determined by conditions which determine our subjective nature. "The general method of procedure—the collection of data, formulation of an equation, mathematical manipulation, solution, and physical reinterpretation—has proved exceedingly astonishingly fruitful," because the procedure is determined at every step by the subjective factors of interest and interpretation.

SPECTROSCOPY AND MATHEMATICS

Spectroscopic data consisted originally of a vast meaningless mass of facts relating to the wave-lengths of radiation thrown off by atoms and molecules. The first ray of meaning penetrated into this mass when Balmer framed the formula for hydrogen

$$n = \mathrm{N}\left(\frac{1}{m_1^2} - \frac{1}{m_2^2}\right)$$

This was extended by Rydelberg to cover a wider field

$$n = \mathrm{N}\left\{\frac{1}{(m_1 - t_1)^2} - \frac{1}{(m_2 - t_2)^2}\right\}$$

N is a constant, m_1 and m_2 are whole numbers, t_1 and t_2 are certain numbers varying from element to element. The constant N was replaced later by 4 N, 9 N etc. While the original data remained, the introduction of certain numerical relationships changed the outlook of the physicist so completely that he saw a new world rising before his eyes. N, m and t stand for certain conceptual relationships perceived by the mind of the scientist. The abstract forms symbolised by arithmetical numbers are so many moulds impressed by intelligence upon perceptual data. If objective reality is claimed for them, then it should be admitted that such objective reality is composed of a fabric which is mental in its essence.

Referring to the application of mathematical analysis to physics, Schrödinger says it is akin to mass production in modern industry.

14. Westaway: *The Endless Quest*, p. 393.

It is " economising labour by making only an initial expenditure for our working machinery." " We have learned how to dominate the whole process with one differential equation.............. The art lies in formulating our knowledge in such a way that the form of the statement is the same for every point in time and space. This is the way of adapting our knowledge so that it can be dealt with in the same manner with regard to time and labour as the manufacturer deals with his machinery."[15] This is, no doubt, a very useful way of looking at the procedure of mathematical physics, since it points to the subjective element in the mathematical treatment of data. But the subjective element does not receive sufficient emphasis.

THE UNCERTAINTY PRINCIPLE

The subjective element receives unexpected emphasis in Prof. Heisenberg's principle of Indeterminacy. The element of uncertainty revealed by the analysis of sub-atomic phenomena is present in the movement of macroscopic bodies also, but the error is so small in the latter case that we neglect it for all practical purposes. It is not this that surprises us, though even here we note the influence of subjective interests which render the neglect of small quantities permissible. What is astonishing is that this element of indeterminism is claimed to have a deterministic basis. " The product of the two uncertainties comes out as h, Planck's constant. The uncertainties have a basis of certainty. So the law of determinism is vindicated." In such an argument there are two fundamental assumptions which are illogical. (1) The mathematical constant is objectified into an existent reality ; (2) It is forgotten that the number representing the constant is itself the result of a long series of mathematical deductions involving purely conceptual manipulations, omission of *small* quantities and similar subjective operations. No objection need be taken to the statement that indeterminism rests on a deterministic basis, if it be remembered that this deterministic basis in its turn rests upon a subjective basis which may become indeterministic at any moment.

THE NATURAL CONSTANTS

Physics makes use of such constants as the cosmic constant, the velocity of light, Planck's constant, the mass of a hydrogen atom, etc. A natural constant is, according to Sir Arthur Eddington, " a name given to a measured quantity which is continually being used or referred to." Constants have to be measured by arbitrarily chosen standards of

15. *Science and the Human Temperament*, p. 101.

length, but if we succeed in reducing them to some natural standard, then they will figure as pure mathematical ratios. Hence we cannot deny the proposition that the natural constant is a monumental evidence of the subjective element in physical data.

Prof. Dirac once exclaimed, " Beware of making any mathematical models or pictures at all! " His warning really amounts to this: the physicist should refrain from objectifying his conceptual hypotheses and claiming for them real existence independent of the mind.

The metaphysical implications of mathematical physics are brought out in an admirable chapter on " The Theory of Groups " in Sir Arthur Eddington's book, *New Pathways in Science.* " Our account of the external world " says Sir Arthur, " must necessarily be a ' Jabberwocky ' of unknowable actors executing unknowable actions."...... "......this mathematical way of describing everything with which we deal emphasises, perhaps inadvertantly, an important physical truth. Usually when we wish to consider a problem about a hydrogen atom, we take a blank sheet of paper and mark in first the proton and then the election, that is all there is to the problem unless or until we draw something else that we suppose to be present. The atom thus presents itself as a work of creation—a creation which can be stopped at any stage. When we have created our hydrogen atom, we may or may not go on to create a universe for it to be part of. But the real hydrogen atoms that we experiment on are something selected from an always present universe, often selected or segregated experimentally, and in any case selected in our thoughts. And we are learning to recognise that a hydrogen atom would not be what it is, were it not the result of a selective operation performed on that maze of interrelatedness which we call the Universe."

A critical examination of experimental science which depends so largely on mathematical calculations reveals the determining influence of the subjective element, and thus supports the conclusion of the previous section.

III

THE LAWS OF SCIENCE

A law of science has been looked upon as something that is purely objective, Universal and rigorous in its operation admitting of no exception. The fascination that this conception of the scientific law exercised over the human mind has been so powerful that those who were unwilling to grant the permanence or objectivity of anything, of even a personal God, were prepared to admit the objectivity of law. All things in

the Universe obey the law. There was a time when the human mind fondly clung to the belief that these laws were merely *discovered* by scientific exploration, just as the invisible animalcule are revealed by the microscope. This belief is false, because law is a creation of the mind. In the creation of such a law the scientist uses subjectively determined elements called facts, which undergo a further subjective transformation in the process of computing the statistical average. The average is obtained by a method of subjective selection. Besides, the scientist proceeds on the pious hope that the errors (positive and negative) cancel themselves, and will, through mutual annihilation, show up the truth. So it turns out that " what we call a law of nature is nothing else than any one of the regularities observed in natural occurrences." It is merely the statement of a statistical average. " It states a numerical relation between qualities that are capable of being isolated, and the range of its applicability extends over the range of values of these qualities for which they can be mentally isolated."[16] Nature's laws are of a throughly statistical character. " The demand for an absolute law in the background of the statistical law goes beyond the reach of experience."

Law ; then, is heavily weighted with subjective elements.

The extra-ordinary claim of objectivity made on behalf of scientific law overlooks the fact that such law is progressively shaped through careful inductive reasoning. The hypothesis with which the scientist starts his inductive investigation is the result of thinking together the observed *facts* and of perceiving their inter-relationship. Such a hypothesis has to be developed and verified. The process of verification can never be completed and the progressive development of the hypothesis is an endless task. But there comes a moment in the history of such a process when the scientist feels the urge to raise the hypothesis to the level of a theory. Finding that, for the moment at least, the hypothesis explains all the known facts, he launches it forth as a law, and thereafter claims for it universal validity. When it has enjoyed undisputed sway over the scientific world for sometime, it comes to be believed in as a kind superhuman force which all nature should obey.

In his book, " *The Nature of the Physical World,*" Sir Arthur Eddington says, " An aged college Bursar once dwelt secluded in his rooms devoting himself entirely to accounts. He realised the intellectual and other activities of the college only as they presented themselves in bills. .... " Ha ! " said the Bursar, " I have discovered one of the Great laws controlling the college. It is a perfect and exact law of the real

16. Levy : *The Universe of Science,* p. 103.

world. Credit must be called plus and debit minus ; and so we have the law of conservation of £. s. d. This is the true way to find out things."[17] This is the way by which scientific laws were found out ; but the scientist unconsciously glides into the comforting belief that his laws are omniscient entities. But fortunately for him there occur in his world periodic upheavals which awaken him to a realisation of the subjective nature of his laws. At the present moment a shock of unprecedented severity is shaking science to its very foundations. More than the relativity and quantum theories, the principle of uncertainty is revealing the subjective element in the laws of physics. With the disappearance of the deterministic background, the scientist is forced to admit that all laws are of a statistical nature and that they are " nothing else than.....regularities observed in natural occurrences."

A scientific law is the result of the creative activity of the mind in which the relational faculty plays the most significant role. Such a law is bound to progress endlessly. To believe that it exists independently of the mind, and that the mind obeys these laws is the greatest conceivable illusion.

In his epoch-making British Association Presidential Address delivered at Aberdeen on September 5, 1924 Sir James Jeans says, " what remains is in any case very different from the full-blooded and the forbidding materialism of the Victorian scientist. His objective and material universe is proved to consist of little more than constructs of our own minds. To this extent, then, modern physics has moved in the direction of philosophic idealism. Mind and matter, if not proved to be of similar nature, are at least found to be ingredients of one single system. There is no longer room for the kind of dualism which has haunted philosophy since the days of Descartes."

We have, within our experience, witnessed the passing away of two types of dualism—the dualism of matter and energy, and of space and time—. It will not be long before the dualism of mind and matter fades out completely.

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A Brief History of English Scholarship

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N.B.—The following studies are based on the lectures of Prof. Nichol Smith given to a small class of research students in Oxford in the Michaelmas and Hilary terms 1933-34.

EARLY ENGLISH ANTIQUARIES

Bishop Selden, a great collector of manuscripts, scholar and Orientalist, once made the cynical remark, " No man is wiser for his learning." And yet learning has had its devotees from the beginning of civilisation, and men have toiled hard in the mere acquisition of knowledge. Of the two classes of people, those that read to live and those that live to read, the former have always laughed at and ridiculed the latter. The men that live to read have generally been jeered at as book-worms, unfit for the great practical affairs of life. Lord Morley once set himself a problem, which he failed to pursue, to consider the relative importance between great literary performance and great political performance, between the making of history and the writing of it—a contrast which he believed " would contain matter enough not only for one, but for a whole series of edifying and instructive discourses." A similar contrast could be made between those that imparted learning and those that acquired it. Just as the makers of history would have been forgotten had it not been for the writers and recorders of it, so too would the givers of knowledge if the collectors of knowledge had failed to do their task. The man of letters writes out of the profundity of his thoughts, feelings and experiences, and in his wake comes the patient plodding scholar who discharges the rather dull laborious task of collecting, collating, editing, annotating and interpreting. We read the works of Homer, Chaucer, Shakespeare in up-to-date editions and texts, but we seldom realise that our good fortune in possessing the best that has been thought and said by these writers is due to the labours of scores of scholars who have spent many weary hours in acquiring and preserving in their purity what has been written by others. Imagine where Shakespeare would have been but for the labours of Hall, Hollinshed, Rowe, Pope, Hanmer, Warburton, Johnson and Theobald down to Boswell and Malone. A scholar is he who pursues knowledge for its own sake ; he does not ask for recognition, and he does not pursue knowledge for any social ends. The history of

English scholarship is a record of the lives and work of English scholars who have helped in the mighty task of handing down the great heritage of the language and literature of England.

JOHN LELAND, 1506-1552

The term "Antiquary" was first bestowed as a title by king Henry VIII on John Leland. Twenty years after the death of Leland, the Society of Antiquaries was founded at the instance of Archbishop Parker, but it was soon suppressed on the accession of James I owing to suspicion of the political opinions of some of its members. The society was reconstituted only in 1718. Many English Antiquaries pursued their labours living obscure lives and unrecognised by contemporaries long before the inauguration of the society under royal charter. Earliest and foremost in their list was John Leland.

He was born in London and was educated first at St. Paul's School and later at Christ's College, Cambridge. In those days it was not unusual for students of one University to migrate to other Universities for completing their education. After leaving Cambridge, Leland joined All Soul's College, Oxford, and finally completed his studies at the University of Paris. He became a finished scholar in Latin and Greek and also acquired a thorough knowledge of French, Spanish and Italian. After the manner of the learned men of the day, he took holy orders and in 1536 obtained the patronage of the king who made him royal chaplain and keeper of the library in the royal household.

In 1533 Leland was made King's Antiquary, an office which had neither predecessor nor successor. In the same year a commission was granted him under the great seal "directing him to make a search for English antiquities in the libraries of all cathedrals, abbeys, priories and colleges, and all places where records, writings and secrets of antiquity were deposited." Leland had an inborn passion for knowledge, and a greed for collecting books and manuscripts wherever they were to be found. His antiquarian tour lasted nearly for nine years, during which, he says he spared himself neither labour nor cost. He claims to have visited "every bay, river, lake, mountain, valley, moor, heath, wood, city, castle, manor house, monastery, and college in the land." His object was to publish a monumental work on "The History and Antiquities of this Nation."

In his zeal for knowledge, he had to encounter a great many difficulties. The monasteries which were till then the safe repositories of books and manuscripts had suffered great havoc at the time of their dissolution, and many monks and scholars had run away with their cherished books into different parts of the country. Some had secreted these valuable

treasures abroad on the continent. Leland was greatly distressed and begged Thomas Cromwell, the king's minister, to extend his commission so as to enable him to collect whatever manuscripts he could obtain for the king's library. He wrote, " It would be a great profit to students and honour to this realm, whereas now the Germans perceiving our desidiousness and negligence do send daily young scholars hither that spoileth them and cutteth them out of libraries, returning home and putting them abroad as monuments of their own country," Leland's wish was partly satisfied, and he managed to despatch most of the valuable manuscripts from St. Augustine's Abbey in Canterbury.

In 1545 after completing his labours Leland presented an address to the king entitled " A New Year's Gift " in which he described the aims and manner of his antiquarian's researches. His ambitions were almost too high to be accomplished in a single life-time. He planned a work on the antiquities or civil history of the British Isles in 50 volumes ; a survey of the islands adjoining Britain including the Isle of Wight, Anglesea and the Isle of Man in 6 volumes ; and an account of the nobility in 3 volumes. By 1545 he had prepared a complete account of the Early English writers and a description of the places he had visited, and of Roman, Saxon and Danish remains of which he could obtain first-hand knowledge and also an account of many old coins and their inscriptions. He spent the remainder of his life in the parish of St. Michael arranging his notes. In the midst of his labour his already overworked brain suddenly gave way, and he became incurably insane and died in 1552 without recovering his reason. A contemporary attributed Leland's mental failure to his remorse at his having left the Catholic church, but there is no foundation for this statement.

More than a century was to pass before Leland's works were published. Leland's manuscript collections were dispersed through carelessness of the trustees to whose charge they were committed, and some of them were sold abroad. The five volumes of his *Collectanea* and the manuscript of his *Itinerary* together with his notes on antiquities, catalogues, and the account of the English writers passed into the hands of William Burton who presented them to the Bodleian Library. Some passed into the hands of Sir Robert Cotton and are found to-day in Cottonian collection in the British Museum. Many antiquaries had access to Leland's manuscripts and some actually plagiarised him. Bale who followed Leland's footsteps in collecting matter on English authors partly transcribed Leland's notes from the *Commentarii de Scriptoribus*. Holinshed, Harrison and Stow freely borrowed from Leland's works, and Camden, Dugdale and Burton owed a great deal of their information to his researches. Camden was rightly accused of " unfairly feathering his

nest with Leland's plumes." Bishop Tanner was engaged in arranging Leland's writings for publication when a surreptitious and hasty edition of Leland's *Commentarii de Scriptoribus* appeared under the editorship of Anthony Hall in 1709. But we owe our authentic publication of Leland's works to another great antiquary, Thomas Hearne, who, in 1710, brought out in Oxford the *Itinerary of John Leland, the Antiquary* in 9 volumes; the *Collectanea* was published by the same editor five years later in six volumes.

JOHN BALE, 1495-1563

Though Leland's senior in years, Bale's antiquarian researches were made at a later date than Leland's, and he had not the advantages of royal patronage which went a long way in enabling Leland to collect much valuable material. He spent most of his life in exile owing to religious persecutions at home. He was educated at a Carmelite convent and then at Jesus College, Cambridge. He was at first an ardent Roman Catholic, and his conversion to Protestanism was rather sudden. He scandalised the Catholics by renouncing his monastic habit and the vows of his order and by taking a wife. He escaped punishment owing to the patronage of Thomas Cromwell who recognised in him a great scholar and man of letters. Bale was already known to the public as a dramatist; his dramas were some of the earliest moralities and interludes in the language, and their main object was to attack Catholicism. One of his well-known plays was entitled *A Brefe Comedy or Enterlude of Johan Baptistes Preachynge in the Wyldernesse; openynge the craftye Assaults of the Hypocrates (the monks) with the glorious Baptyme of the Lord Jesus Crist.* Another of his popular interludes was called *King Johan.*

Bale made several enemies by his violent outspokenness, and on the fall of Cromwell, he had to leave the country as an exile to Germany. He returned for a short period in the reign of Edward VI but had to go back to the continent on the accession of Mary Tudor. He came home finally in the reign of Elizabeth, and lived an obscure life as prebendary of Canterbury dying in that office in 1563.

Bale was less of a plodding scholar and more of a versatile genius than Leland. His historical and theological learning were of a high order. His scholarship was obscured by his bitter controversial nature which won him the name of "Bilious Bale." His most important work was the history of English writers which appeared in 1548 under the title *Illustrium Majoris Britannae Scriptorum Summarium in quinque centurias divisum.* In this he arranged chronologically the lives and works of English authors. He borrowed largely his information from Leland's

Collectanea, but very often he elaborated Leland's notes and added fresh information based on his own examination of manuscripts in the monasteries. Many of the manuscripts he mentions have been lost now.

JOHN PITS, 1560-1616

While Bale in his zeal for the new faith wilfully neglected the Catholic writers, John Pits being a Catholic made a careful record of all Catholic writings and omitted mention of the Protestants or at best treated them with ridicule. Pits was a student of New College, Oxford, and would have been elected a permanent fellow of that house, but he chose a voluntary exile for conscience' sake and lived abroad. He became a member of the English College at Rome, studied philosophy and divinity for several years and was ordained priest.

His principal work was *De Illustribus Angliae Scriptoribus* in which he made a record of all the English writers, and although he abhorred Bale for his religious opinions, he borrowed freely from the latter's writings. He notes with derision Wycliffe and the Wycliffites, and says that their name denotes " Weak belief " or " Wicked belief." Pit's catlogues are indispensable for our knowledge of the Catholic writers of the century. He records several interesting anecdotes one of which is about John Heywood, the author of the *Four Ps*. It is said that when Heywood was on his deathbed the priest consoled him saying repeatedly that " the flesh was weak," to which the witty dramatist retorted, " But you are finding fault with the Almighty for not making me fish ? "

Leland, Bale and Pits—" the three Johns "—are generally grouped together as the earliest English Antiquaries. A contemporary characterised them drawing a contrast between them that " Leland was the industrious bee working, Bale was the angry wasp stinging, and Pits was the idle drone stealing."

THOMAS TANNER, 1674-1735

Among the antiquaries of the seventeenth century, Tanner, Bishop of St. Asaph, occupies a very high place. He graduated from Queen's College, Oxford, and became Warden of All Soul's College in 1695. When at Queen's he was deeply influenced by Leland's manuscripts, and in collaboration with Gibson, afterwards Bishop of London, he began his researches in antiquities. His great ambition was to bring out a complete edition of all Leland's works, and though his proposals received little encouragement, he laboured at it for several years. But another antiquary and member of Queen's College, Anthony Hall anticipated Tanner by publishing hastily Leland's *Commentarii* much to the vexation of Tanner. This edition was full of grave errors owing to Hall's impa-

tience to read the manuscripts correctly. Thomas Hearne had a poor opinion of Hall's attainments as a scholar—" A dull stupid sleepy fellow, a man of no industry, it being common with him to lye a bed till very near dinner time and to drink very freely of the strongest liquors."

Tanner's masterpiece was the *Bibliotheca Britannico-Hibernica* at which he laboured for nearly forty years. In this work Tanner proposed to give a detailed account of all the authors that flourished within the three kingdoms from the earliest times up to the beginning of the seventeenth century. This monumental work did not appear till 1748, thirteen years after the author's death.

Besides this Tanner amassed vast materials for a history of Wiltshire. He was also the author of another important work, *Notitia Monastica*, a short history of the religious houses of England and Wales. He was an indefatigable collector of manuscripts and books. He gave them as a free gift to the Bodleian Library, but they sustained serious damage as the boat in which they were brought from Norwich to Oxford was submerged in water, and the books remained for nearly twenty hours under water before they were reclaimed.

THOMAS HEARNE, 1678-1735

The foremost among the antiquaries of the seventeenth century was Thomas Hearne. Learning was his passion and books and manuscripts were his chief companions. Pope had a very poor opinion of researchers in general; he called them

" the bookful blockheads ignorantly read
With loads of learned lumber in their head."

For Thomas Hearne he had nothing short of contempt; he included Hearne in the *Dunciad* under the name of Wormius:

" But who is he in closet close ypent
Of sober face, with learned dust besprent?
Right well mine eyes arede the myster wight,
On parchment scraps yfed, and Wormius hight,
To future ages may thy dulness last
As thou preservest the dulness of the past."

Hearne's life was remarkable in many ways. Born of a poor family, he was sent as a boy to do day labour for livelihood. A patron sent him to school, and later to St. Edmund Hall, Oxford. A born lover of books, he spent practically all his time in the Bodleian Library, and became Assistant Keeper, in which office, he amassed a minute knowledge of books of

all kinds in the library. He became so attached to the Bodleian that he refused several other offices including the Librarianship of the Royal Society and the Camden Professorship of History. In 1716 he was actually ejected out of the Bodleian as a result of his refusal to take the oath of loyalty to the Hanoverian dynasty. He boasted that " he preferred a good conscience before all manner of preferment and worldly honour." He remained in Edmund Hall for the rest of his life.

He was the first to succeed in doing full justice to the works of Leland. He published both the *Itinerary* and the *Collectanea* after careful revision in fifteen volumes. Such was his passion for antiquities that whatever was old had a special attraction for him, and he had a poor sense of discrimination between what was great and what was useless among antiquities. It was rightly inscribed on his tomb, " Who studied and preserved antiquities."

He left behind a great many volumes of diaries which have been published in recent years by the Oxford Historical Society. They contain an intimate and outspoken record of his opinions about men and things, of University and public matters, of books and authors. His opinions of his contemporaries are often damaging and brutally frank. For instance, Bishop Trelawny " was an illiterate, mean, silly, trifling, and impertinent fellow." Mr. Trapp, the Professor of Poetry, was " a most silly, rash, hot-headed fellow." Charlett was " of a strange unaccountable vanity." Lancaster, Provost of Queen's " was the worst Vice-Chancellor that ever was in Oxon who raised to himself a pillar of infamy." Hearne does not spare even the wives of his antagonists ; " Tanner's wife is remarkable for drinking of brandy ; " " Kennett's wife wears the breeches and manages him as his haughty insolent temper deserves." To his contemporaries Hearne was a very disagreeable man, but English scholarship owes him a great debt.

ANTHONY A WOOD, 1632-1695

It is hard to find a more notoroiously disagreeable and peevish-tempered person among the great English antiquaries than Anthony a Wood. He matriculated at Merton College, Oxford, and was considered a dull pupil as he took five years to obtain the B.A. degree. He never thought of a profession seriously and spent his days in idling and amusing himself with music and books on History and Heraldry. Dugdale's *Warwickshire* inspired him to attempt a similar book for his own shire of Oxford. With this object in view he took lodgings opposite his College, and immersed himself in the task of collecting all possible materials in connection with Oxford. He planned a historical survey of the city of Oxford including the University, the colleges, the monasteries, the parish

churches, and devoted his whole time to this task for full six years. He worked all the morning at his books in the libraries or in his room, and in the afternoons wandered about all the bookshops picking up old books and pamphlets. In 1674 appeared his book *Historia et Antiquitates: Oxon: Univ.*

The book by which Wood is justly celebrated is the biographical dictionary of the Oxford writers and Bishops, known as *Athenae Oxonienses.* The idea of such a work originated from Dr. John Fell, Dean of Christ Church, and Wood immediately set out to the task. He made tireless researches in all the Oxford libraries and private collections for information about those connected with Oxford. The book appeared in two volumes in 1691-92. "This great work," said Sir Walter Raleigh, "as splendid a benefaction as has ever been conferred by a single donor on any University, was conceived and executed by its author out of love for the place where he was born and had his education. Like a disdainful, beauty, the University of Oxford has often been careless of those who love and serve her best." Wood spent a lifetime in the service of Oxford, but he made innumerable enemies, and was forbidden to enter his own college on account of the quarrels with the fellows. He never held any office in the University, but lived an obscure life confined to his hermit's cell. Of the greatness of this work there can be no two opinions. Hundreds of later critics and biographers have used these volumes as trustworthy authority for their facts. "The *Athenae Oxonienses* is a monument of literature; it records in its thousands of columns all that Oxford meant to the world, all of learning and beauty that she gave to the world, during centuries of her existence."

(*To be continued*)

Some Notes on " Sir Gawayn and the Greene Knight "*

By

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The purpose of this paper is to offer a few notes to certain passages in " Sir Gawayn and the Greene Knight." Tolkein and Gordon's Edition of the poem has met a long-felt need in the study of Middle English Literature. They have made the poem available for the first time, in a well-edited and well-printed text. In the transcription of the manuscript and in the interpretation of many difficult passages, they have shown great care and acuteness.

It is therefore all the more desirable that in the few instances where additional notes or corrections are required, they should be immediately supplied. A more intense study of the North and North-West Midland texts, and a greater acquaintance with the dialects have helped to throw light on certain phrases and passages, which were considered obscure even by Tolkein and Gordon. For instance, the discovery in a North-West Midland text, of the phrase " bi lag mon " has solved a passage in " Sir Gawayn " which had been a puzzle to editors. " bi lag mon " was a colloquial phrase quite common in that district, meaning " to lead astray." The MS. of " Sir Gawayn and the Greene Knight " reads at l. 1729 " bi lag mon ". Not being able to make any sense out of it Tolkein and Gordon, following Napier and Gollancz, emended it to " bi lagged men." Now that a sense has been found for the MS. reading, the original is to be retained.

In the following paragraphs a few further notes are offered. There is one passage, in special, which has been much overlooked, but which fixes the date of the poem within a fairly definite period. I shall take that passage first.

(1) The word " Capados " occurs in two places in the poem. When the poet describes the appearance of the Green Knight, he compares his flowing hair and beard to a " capados ".

*I am greatly indebted to Dr. (Mrs.) Elizabeth Wright D. Litt. (Leeds), for valuable suggestions I received when I read the text with her. This paper is largely the result of those suggestions.

"in the Wyse
Of a Kinges *Capados* that closes his Swyre." (185—6).

Again, in describing the different parts of Sir Gawain's dress he speaks of his capados:

"And sythen a crafty capados, closed aloft
That with a bryzt blaunner was bounden within." (572—3).

In the N. E. D. this word is entered as rare and obsolete, and the only instances quoted of its use are these two passages in "Sir Gawayn". The word, however, occurs frequently in the wardrobe accounts of Edward III. The N. E. D. editors quote Madden's explanation of the word as French cap-è-dos meaning a "cape to the back". But they rightly say that this explanation is unsatisfactory, because this phrase is not found in any French Dictionary. The meaning they give to the word is: "a hood, a piece to protect the back of the neck."

Prof. Tolkein in his notes quotes Napier, and apparently agrees with his explanation that "it is *not a hood,* but a tunic made of cappadocian leather". But neither Napier nor Prof. Tolkein say why it should be called "Kinges capados". If capados meant only a tunic, what is the distinctive feature of the 'King's tunic' to which the hair and beard of the Green Knight are compared?

As an explanation of "Kinges capados" I would refer to a parallel passage in the poem in l. 2297:

"The hyze hode that Arthur the razt."

where the Green Knight speaks of the hood that Gawain wears, a hood that King Arthur has presented to him.

I would equate "capados" with "hode", agreeing with N. E. D. It is a separate garment made of cappadocian leather, lined inside with costly fur ("blaunner"). The illustrations of 14th century knightly armour show such a hood covering the head, with an oval opening for the face, which can be closed up tight round the neck (cf. "closes his swyre" and "closed aloft") and hanging down behind protecting the shoulder and chest,

"That half his armes ther-under were halched." (l. 185).

The order in which Sir Gawayne dons the different parts of his armour (see l. 580 et seq.) shows that capados was a hood, on the top of which, shielding the head, came the "awentayle" (l. 608) and above that the helmet. The byrne was worn over the doublet, and on that the surcoat

with armorial devices. In all these details the dress of Sir Gawayn corresponds exactly to that worn by the knights of the Order of the Garter in Edward III's time.

There are evidences—pointed out already by several editors—to prove that this is a " Garter poem ", composed to celebrate that order of knighthood founded recently. The sentence at the close of the poem : " Hony soyt qui mae pence " is the motto of the order of the Garter. We know that the order was founded by Edward III in about 1358. In the wardrobe accounts of Edward III there are references to the mantle, hood and surcoat belonging to this order from 1358-9 onwards. It was, besides, the King's custom to distribute among the knights of his household the cloth and fur for the surcoat and hood. Taking, therefore, that " capados " means " hood ", " Kinges capados ", would mean, as l. 2297 more explicitly says, the hood presented by the King to his knights, as was Edward III's custom.

The allusions to the Order of the Garter and the reference to the " Kinges capados " would confirm the date of the poem as somewhere between the founding of the order and the death of Edward III, i.e., between 1348 and 1377.

(2) In ll. 35-36 of the poem Tolkein has found " an interesting testimony of the continuity of the alliterative tradition " :

" With lel letters loken
In londe so has been longe."

He apparently takes " lel letters loken " to mean alliterative words, strung together in verse, according to the O. E. tradition, which persisted in the North-West Midlands down to the fourteenth century. But surely this is fanciful. The author of " Sir Gawayn " was a self-conscious artist ; but not so self-conscious as to start the poem announcing his thoroughly " nationalist " tradition ! Besides—and this is more conclusive—" loken ", the p.p. of louken, O.E. lucan, cannot mean the technical linking together of alliterative words in poetry. The N. E. D. does *not* give this as one of the meanings of this word. Prof. Tolkein's wish to prove a continuity of alliterative tradition is perhaps father to this explanation. More simply, the words may mean " cloathed in true language ".

(3) As Sir Gawain approaches the castle of the Green Knight, he sees from a distance its walls, ramparts and towers :

" And sythen garytes ful gaye gered betwene
Wyth mony luflych loupe, that louked ful clene, (ll. 791—2).

Prof. Tolkein glosses the word " louked " rightly as a weak preterite of " louken ", but takes it to mean " closed " or " locked ", agreeing with the subject " loupe ". He then would translate it thus : " (He then saw) fine towers built in the intervening spaces, with many beautiful windows that closed firmly." This interpretation seems somewhat ludicrous when the scene is visualised. Sir Gawain is yet at a good distance from the castle ; he sees far away the wide ditches, high walls and towers of the castle. He certainly could not from his position see if the windows have been or could be properly and firmly closed without the aid of a telescope !

It seems, therefore, to make better sense if " louked " is taken as a verb agreeing with " Garytes ", and the clause " wyth mony luflych loupe " is considered parenthetical. " Louken ", as the N. E. D. points out, meant also " to form one mass, to close up ". Eg. in " Genesis and Exodus " (1250) we have the sentence : " God him bad helden up his hand toward this water, in a morgen quile, þe se *luked.*" The principal sentence would then be : " Garytes ful gaye gered betwene . . . þat louked ful clene " i.e. (" the towers erected in the intervening spaces . . . formed a fine mass ").

(4) In l. 2012,

" And bade him bryng hym his bruny, and his blonk sadel."

the word " sadel " is surely a verb : " he bade him bring his hawberk, and saddle his horse." But in the glossary of Tolkein and Gordon's Edition of the poem it is put down as a noun ! This is probably a slip.

Unemployment—its Causes and Cure

By

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For more than a decade now the problem of unemployment has been very much before the public eye. The disproportionate number of applicants for Government appointments and the sight of educated and qualified young men rusting for want of work have roused the attention of public men and of Government. It is clear therefore that the problem of unemployment in this country was at first viewed from the standpoint of the middle-class educated young man, who was unable to secure suitable work. But it would be well if we try to remember that the problem of unemployment is by no means confined either to the educated or to the middle-class. The term unemployment itself is often loosely used. Here we may take it to mean the absence of suitable employment to those who are willing and qualified for work but who, due to various causes, have been unable to fit into the economic structure of society. Unemployment on a large scale is an economic waste and a political danger ; and no time or energy devoted to this pressing question would be superfluous.

The importance of this problem has been recognised in all the progressive countries of the world. Everywhere the state has recognised its duty to provide proper employment for its citizens by the promotion of industries and public works and to introduce unemployment insurance. The task of insuring employment for 36 crores of people is a stupendous one indeed ; yet for the ordered progress of this country the problem has to be faced. The socialist state in Russia claims to have abolished unemployment while the abolition of unemployment finds a prominent place in the political programmes of the leaders in Italy, Germany, America and England. For this purpose the Fascist state has assumed a rigid control of the economic machinery of the country. President Roosevelt with his New Deal is also facing the same problem by attempting a via-media between socialism and unbridled capitalism. Nazi policy in Germany is also largely influenced by the question of employment and it is well known to all that a national government came into existence in England in response to an urgent call for economic reorganisation. State action in all these countries has been directed to extending (if necessary) and improving industry by state help, to providing larger avenues for employment by increased public works

and spending policies and to enabling the profits of agriculture and industry to be distributed among as many men as possible by the help given to co-operative endeavour by the reduction of the number of hours of work and by the improvement of wages. It is increasingly realised that economic prosperity and the consequent disappearance of unemployment depend upon the co-ordination and the direction of all the powers of the state to this one end: peace should be assured, friendly treaties formed with foreign countries, credit extended to private enterprise, exchange and currency policy modified according to the demands of employment and education and transport so organised as to subserve the best interests of sustained economic progress. Large sums of money are spent by modern states to mitigate the evils of unemployment by unemployment insurance and relief and by social service for the unemployed.

The nature of the unemployment problem in India is peculiar. While it has been repeatedly asserted that the problem of unemployment has always been present in India no statistics are available to gauge the extent of industrial and agricultural unemployment in this country. It cannot be doubted that when India was under a complete mediæval economy the agricultural labourer could find work in his off-time in a host of minor industries—artistic and utilitarian—which are largely patronised by the well-to-do and aristocratic classes. But the impact of the machine has torn up the fabric of Indian economic life and far-reaching adjustments are inevitable if India should come within measurable distance of the more progressive nations of the world. Let us now try to study in greater detail the problem of middle-class educated unemployment.

The growing difficulty to secure employment began to be felt in the years after the war. Attention was drawn to this problem for the first time in Bengal in 1922 by a resolution in the local Legislative Council. Soon it was taken up in other provinces and the late Mr. A. Rangaswamy Ayyangar moved the following resolution in the Legislative Assembly on the 20th January, 1926:

That this Assembly recommends to the Governor-General in Council that he may be pleased to appoint a committee having a non-official majority to investigate into the problem of unemployment among the middle-classes and suggest remedies for the same.

This resolution was carried by a narrow majority in spite of Government opposition. Two years later the question was again raised in the Council of State and the Government spokesman said, as his colleague in the Assembly had done, that the subject was primarily one of provincial concern. Later on some governments appointed committees to study

this question. So also in the Indian State of Travancore a committee reported on this problem. The latest of such reports is undoubtedly the best—that of the committee appointed by the U.P. Government and presided over by Sir Tej Bahadur Sapru. The question was referred to by Lord Willingdon in his farewell speech to the Assembly and it was touched upon by the present Viceroy, Lord Linlithgow, in his broadcast message.

Though the acuteness of the problem of unemployment has been realised from the Viceregal Lodge down to the meanest hut, though the question has agitated press and platform alike, though much thinking silent and vocal has been expended on it, in spite of this unanimity as to its existence, there has been no agreement as to its causes. Causes many and various have been diagnosed for this economic malaise and it is to be hoped that while the wise doctors differ the patient does not continue to suffer. In spite of the divergence of opinion it is easy to perceive that there is a thread of truth running through all these explanations while each view in its exclusiveness of the others seems merely to lose sight of the forest in the presence of the trees. While the whole world is yet within the grip of unprecedented depression it is but fair to expect that India cannot escape the gale. This, however, is only a temporary feature and causes of a more permanent and fundamental nature should be sought in the temper and outlook of the people, in the attitude of the government and in the demands of a fast changing world economy. It has been contended that while India's population has grown and is growing out of proportion to her food supply—a journalist saying that there is a downpour of babies in India—the professional and official classes are too slow in adapting themselves to the new conditions; the educated are averse to manual labour while those classes which had hitherto never competed for office or profession now seem to see their salvation in these and nothing else. It is not true to say that the educated classes are averse to all physical labour; nor is it true that the labouring classes now crave only for office. The aversion of the educated man to manual work extends only to such forms of it as give no scope for him to employ his better brains and give play to his wider knowledge and larger outlook. The self-conscious and self-respecting labour classes fight merely against hereditary and customary restrictions; they are eager to take up any calling which brings in wealth provided it is not branded with the stigma of social inferiority. Therefore if there is economic stagnation and waste it is due to lack of the free play of opportunity.

Agriculture has ceased to be a paying industry and when prices are low there is no great incentive for agricultural expansion or for spontaneous agricultural colonisation. Lack of diversified employment, ab-

sence of new professions, inadequacy of large-scale industry and want of economic planning have left India a straggler in the race for industry, a weakling, poor and ill-fed, subsisting on the fast diminishing returns of a diseased and overburdened system of agriculture. In a fast changing world where decisions of far-reaching importance have to be taken quickly and courageously routine and rule of thumb cannot pay; but what is wanted is bold and far-sighted planning to meet the future industrial and economic needs of the country.

It is easy to realise that whatever the causes a mine of potential wealth is lost to the country by the enforced idleness of numbers of young men who might have been employed in useful production. While the young men rust and deteriorate for want of healthy occupation society has to meet the additional burden of supporting hungry mouths which are unable to find food for themselves. Those who are trained to professions or skilled occupations lose their efficiency and are robbed of the cunning of their hands by the stealthy march of time and the extra money spent on their training is so much dead capital. Unable to find work the young men grow up without the habit of work, deteriorate physically and mentally. Helpless and hopeless they fall easy victims to any propaganda which dangles before them hopes of a change. It does not matter to them what that change is; because no change whatsoever can be to them a change for the worse. Can any one wonder that advocates of extreme views find a congenial soil in our unhappy country?

Coming next to the remedies for unemployment we have first to realise that the question of unemployment is indissolubly bound up with the question of education. The Sapru Report says thus regarding this point: "The more we have studied the entire problem, the more we have felt convinced that the time has come for a revision of our entire educational policy . . . In short, our opinion is that education must be brought into line with the needs of the country. There must be some correlation between education and the use that is going to be made of the educational product. We are clearly of the opinion that in future education and employment must be viewed together." Regarding Primary Education the Sapru Report observes that primary education should be calculated not merely to remove illiteracy but also to enable boys to become better agriculturists and more useful members of village communities and recommends compulsory education and the raising of the age limit to 12 or 13. In the matter of secondary education two types of certificates are recommended one qualifying for admission to industrial, commercial, and agricultural schools and the other qualifying for admission to Arts and Science Intermediate Colleges. For the intermediate there should be four parallel courses in industries, in commerce, in agri-

culture, and in arts and science. "Secondary schools should provide much more diversified courses of study, care being taken to give more practical than theoretical training to our boys. The industrial courses in Secondary schools should aim at giving technical training of a general character designed to develop skill of hand and eye and cultivate practical aptitudes so as to predispose them towards industrial life. Proper agencies should be created as to their careers." Regarding University education the committee believes that many of the students who are now in the Universities ought not to be there; that a good number of them could be deflected to industrial and commercial pursuits and recommends that those who pass the S.S.L.C. in the third class ought not to be admitted to the Universities. Greater stress should be laid on scientific and vocational education. Research in Universities should relate to matters of industrial value. Attention is also drawn to the need for co-ordination of research and to the problem of Indian students in England.

While admitting the close connection between employment and education one cannot help wondering whether the committee has not taken a too narrowly utilitarian view of the problem. The recommendation to give rural bias to primary education seems to forget the urban population and their special needs. Compulsory education and the increase in the number of years during which boy or girl goes to school will help to stamp out illiteracy and increase employment. There is nothing to cavil against in their recommendations regarding Secondary education; but one cannot agree that the number of graduates turned out to-day is too many and the implication that many of them are unfit for the college course. The proportion of graduates to the population in India is smaller than that in other countries. The late Sir Asutosh Mukherjee wanted India to have as many graduates as possible and held that the promotion of scientific research without reference to immediate needs would make for the cultural and intellectual well-being of the country. No country can have too much of liberal education and scientific advance. If science and literature are neglected in the interests of immediate utilitarian ends the consequences must be grave to any country. There is an excellent case for better technical education and industrial research; there is a very good case for the improvement of the methods of instruction; but there can be absolutely no case for a restriction of liberal education. Even if the deplorable effect is an unintended result of a narrow pursuit of material ends these very ends suffer in the long run for want of light and leading. The best course then should be not only to make adequate provision for liberal education but also to make commercial and technological studies easily possible for a large number of people who are likely to benefit by them and who may be absorbed by the commerce and industries of the land. But one must not forget that mere

improvement or reorganisation of education can never solve the problem of unemployment in India.

One potent means of solving the problem of unemployment in India is the improvement of agriculture. Though during the past century and a half agriculture has become increasingly the preponderating occupation of the Indian people it is a common place of economic thought that the methods of agriculture in India have undergone no appreciable change for thousands of years. The scope for improving the rate of production per acre is very good indeed, since in almost every other country in the world the yield per acre is much greater. A greater yield can certainly be secured by introducing scientific cultivation leading to the preservation of natural manures, introduction of artificial manures, improvement of the seed and extension of an ensured steady and continuous supply of water. The introduction of seasonal crops and the provision of subsidiary occupations by the encouragement of small-scale cottage industries will go a long way to wipe out the unemployment of the agriculturist. Improvement is called for in the direction of livestock, credit and education. The consolidation of scattered and divided holdings, the improvement of agricultural marketing, and the standardization of weights and measures would make for the rationalization of agricultural production and the amelioration of rural conditions.

But it is often contended that the educated man can never go back to the village and be satisfied by his few acres paternal or otherwise and that the introduction of scientific methods will only reduce the scope of labour and will promote, instead of reducing, unemployment. The unsoundness of these arguments will be clearly evident when it is realised that the educated young man is asked to return not to the sloth and stagnation of an antediluvian agriculture but to be pioneer and apostle of a new agriculture, more up-to-date and scientific and hence more paying and better calculated to draw out his powers of organization and direction. What is wanted in this country is that the Zamindars and big landlords should take a keener interest in the cultivation of their lands, and be the exemplars and exponents of a healthier and more paying system of agriculture. If they set their minds to improving seed and stock, plough and field, they can provide scope for the employment of trained men. The distinction between town and country will progressively disappear if the landed men settle in the villages and in their turn attract educated men, doctors, attorneys, chemists, scientists, and men of other professions. The best form of rural uplift will then be effected and the leaven of wealth and culture and a wide and sympathetic outlook will obliterate from the minds of men memories of sickness, poverty, and squalor which have too

long been associated with our country side. Improved methods of agriculture mean an increased income to those engaged in it and the consequent rise in their standards of life will cause a host of subsidiary occupations to spring up that will absorb a good section of those who are released from the plough. Thus a social life will be created in the country side which will in no way suffer when compared with the amenities of the towns.

It has also been suggested that the problem of unemployment can be tackled by an increase in the number of posts under Government notably in the Development departments, in health and medical, in sanitation and in education and by pursuing a vigorous policy of public works. In a country steeped in illiteracy and disease scope for greater activity in these services is almost unlimited; but we have to recognise that this must involve a substantial rise in the tax burden of the people. One must not fight shy of all additional taxation but it should be preceded by efforts to improve the taxable capacity of the people.

This can be effected only by a far-reaching policy of industrialization. In a country abounding in all the pre-requisites of industry, abundant raw materials, central location and wealth of labour, industrialization should present no difficulty provided that the nation is determined. We cannot go back to the forest and the *peepal* tree, to the clothes of bark and the pots of clay; so we are bound to go forward to organized production, to the comforts of civilized life, to the airship and the radio. We do not want to become slaves of the machine, and fodder for cannon; we trust that man who invented the machine can also master it and make it subserve the best interests of a common humanity. Again it has been urged against industrialization in India that capital is shy, skilled labour is rare and that industry is unorganized. The working of the Sugar Industry Protection Act of 1932 has revealed the baselessness of these arguments. While barely three years ago thousands of bags of foreign sugar were dumped into this country to-day there has been such a spectacular growth of this industry that they have already begun to think of exporting sugar to other countries. To-day capital in India is waiting for the call of industry; the only condition she demands is the assurance of a return however low it may be. The Protection Act has given such a fillip to the sugar industry that hundreds of chemists have been absorbed by the industry and thousands of labourers gain a livelihood from it. Recognizing the need for industrial development in India the authors of the Montagu-Chelmsford Report say: "On all grounds, a forward policy in industrial development is urgently called for, not merely to give India economic stability, but in order to satisfy the aspirations of her people who desire to see her stand before the world

as a well poised up-to-date country, in order to provide an outlet for the energies of her young men who are otherwise drawn exclusively to Government service or to a few overstocked professions, and in order that the too speculative and literary tendencies of Indian thought may be bent to more practical ends, and the people may be better qualified to shoulder the new responsibilities which the new constitution will lay upon them," and these words are even more true to-day than they were 17 years ago. The need of the hour is whole hearted support to the policy of rapid industrialization from Government and people. These far-raching changes cannot be effected merely by pursuing a policy of hesitating protection. We must take courage in both our hands and proceed boldly trusting that to good-will and commonsense even the apparently impossible becomes an achieved fact.

Of late counsels of despair have begun to be heard in various parts of the country. The path of wisdom for India is the path of reform and not of revolution. Insuring of a reasonable standard of life for all the men and women of this country is not synonymous with a militant faith in revolutionary socialism. Socialism as a method of thought and as an ideal in life and religion has appealed to men from very early times. But always the faith in these principles has been guided and canalized by the conditions political, religious and social that existed in the world. As India is constituted to-day to advocate immediate socialism is to exhort men to leap in the dark. Nationalization of production and thorough going control of distribution in India must involve a complete upset of the social and religious fabric of India and is so opposed to the instincts and habits of the people that it cannot for many a long year be envisaged as at all within the realm of probability. So let us not cry ourselves hoarse over the barren issues of academic socialism but sit down to work and order educational, industrial and legislative machinery in such a way as to contribute to the greatest happiness of the greatest number of our countrymen.

In the industrial sphere the methods that can be pursued for the betterment of our position are briefly these : an industrial and economic survey of India in order to find out the possibilities of development, the formation of Investment Trusts for furnishing industry with initiative and direction, the pursuit of a steady policy of assisting the financing of industry and above all a firm policy of discriminating protection which will assist the development of existing industries and give scope for the springing up of new ones. To effect a happy correlation between education and industry, between the demand for labour and the supply of it Boards must be created which will function in the districts, in the provinces and at the seat of the Central Government. These will seek to

secure a laison between education and employment and thus prevent waste in education and minimise the chances of the loss of national wealth by the enforced idleness which is another name for unemployment. The District Boards for Unemployment can function under the District Educational Council with some members co-opted for the purpose from the industrialists and large employers of the district. These can help to adjust the work of teaching in the district to the demands of those who seek a career within the district itself. The Provincial Employment Bureaus must be connected with the Universities and must tackle the question of employment and training and tune it to the larger needs of the provinces while the Central Employment Bureau must work under the Inter-University Board and tackle problems of a national character. In all these Boards close co-operation of Government and the commercial and industrial interests must be secured.

But one cannot help emphasizing the truth that improvement in education, industry and agriculture must all be calculated to increase the national dividend, to enable the worker and the peasant to get four annas where he now gets one, to give him more leisure, to lend him more knowledge and to enable him in every way to be healthier and happier and more prosperous. For securing this desirable consummation and for ensuring for our country her rightful place in the comity of nations what is wanted is planning, not patch-work. It is not beyond the wits of men of good-will in India as well as in England so to order the political and economic affairs of this country as to secure stable amity and co-operation on an equal footing between England and India. The question that confronts us to-day is : Shall we shut our eyes and harden our hearts, and be content with looking at the details of a hand-to-mouth policy which will keep India, famished, unhappy and sullen ? Or shall we open our eyes wide, look into the future and plan wisely and boldly so that India will become strong, contented and happy, an honoured partner in the British Commonwealth of Nations, an asset to the cause of spirituality and civilization ? And the answer is equally plain. We cannot stand still or hesitate, we must look ahead and go forward with courage in our heart and faith in our destiny.

Sixty Years of Madras Cereal-Prices

By

S. Subramanian and S. Ramakrishnan

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Index numbers of the prices of rice, *cholam, cumbu* and *ragi* for the Madras Presidency from 1874 to 1934 have already been published.[1] The method adopted in computing them was to group the districts of the Presidency into its five natural divisions, to work out individual figures for each division for the several food-grains and to calculate the simple arithmetic average of the corresponding figures to get the index number of each food-grain for the whole of the Presidency. The employment of the simple arithmetic mean formula even within a division is not above criticism though the dispersion in the data from district to district in a particular natural division is in most cases very small. Thus when striking the average of the division figures to get the value for the Presidency, taking into consideration the fairly wide range of the values of the individual divisions, it may be said that a proper system of weighting is necessary if our index number is to present a faithful picture of the state of things.

2. If the truth of the foregoing statement is admitted the question arises: what is the best system of weights that may be adopted? The answer will depend on the purpose for which the index number is to be used. If it is desired to make use of this index in discussions pertaining to cost of living, then weights in accordance with the amounts consumed will be the most logical. If it is borne in mind that the index numbers that have been published have been computed from data relating to retail prices, the above system of weighting will be seen to be the best. But dependable statistics regarding the amounts consumed are not available at present. This method being out of the question then, it may be suggested that weighting may be done in accordance with the population in each area. This is open to the serious objection that the population in any area is no true index of the importance of the area with regard to a particular food-grain. Dependence exclusively on the number of persons would amount to ignoring the effects of such important factors as the habits of the people and the climatic conditions which more than any

1. Adyanthaya: *Journal of the Madras University*; July 1933 and January, 1934.

Subramanian: *Journal of the Annamalai University*; August, 1934.

others determine the relative importance of any division among others. We have only to consider the cases of the East Coast Central and East Coast South divisions in relation to rice to realise the strength of the objection to this system of weighting. Yet another suggestion may be weightage on the basis of the area of each division. This system is even weaker than the previous one for it ignores one more powerful factor, namely, the density of the population in each division. Thus it may be said, in short, that the construction of a satisfactory index number bearing on the cost of living is not possible now.

3. Cost of living having gone out of the scope of the discussion, an equally important question turns up. Can our index number be so constructed as to be useful in tackling problems concerning the assessment of land revenue ? Remembering that the enhancement of the rates follows the average fluctuation in the prices, it may be admitted that an index number computed by an appropriate method of weighting will be of immense use to Government as well as the revenue payer. The choice of the proper weights is not difficult now ; for the natural system of weighting in this case is in accordance with the relative importance of each area from the point of view of production. As pointed out earlier, each natural division of the Presidency is a more or less homogeneous area as regards prices. Thus it appears not quite necessary to introduce weights when working out the figures for each division. Nevertheless, it is highly desirable that when observations are made to the contrary weightage is introduced even within each division. Now objection may be raised to the inclusion of retail prices in the construction of index numbers for ostensible use in discussions concerning land revenue. It is no doubt true that wholesale prices with weights corresponding to production would give ideal indices but statistics of wholesale prices are not available for all the years of our sixty-year period and hence a uniform treatment is rendered impossible on this basis. Moreover it appears from a study of the figures for the years for which wholesale price statistics are available that wholesale prices move more or less in sympathy with retail prices. Further, since we are dealing only with ratios, no great error will be introduced by the employment of retail prices. It is hoped, however, that when wholesale prices for a sufficient number of years will have been collected it will be possible to construct indices employing wholesale prices.

4. The table in section 6 gives the index numbers of prices of rice, *cholam, cumbu* and *ragi*, for the years of the period 1874-1934, in the Madras Presidency after revision. The yield of a normal year has been chosen as the basis of weightage. The following scheme shows the weights actually assigned to each division for each crop.

	West Coast.	East Coast Central.	Deccan.	East Coast North.	East Coast South.
Rice.	5	8	1	17	9
Cholam.	0	5	8	7	4
Cumbu.	0	6	2	4	3
Ragi.	1	16	5	12	6

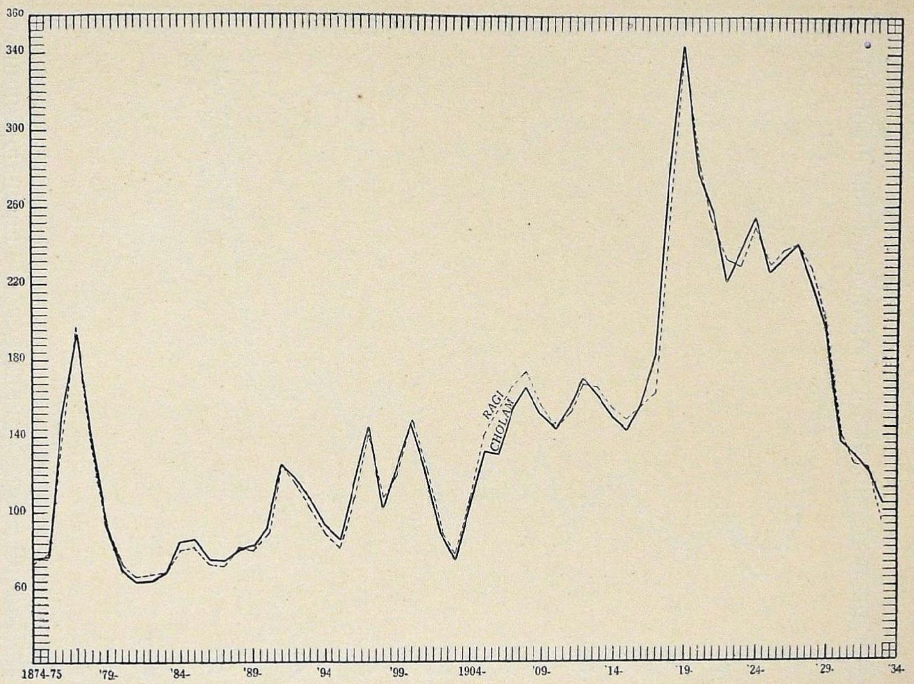
5. An attempt has also been made to average the variations in the prices of the four food-grains with a view to showing the fluctuation in the consolidated level of prices for the food-grains. Given the index numbers of the several food-grains for a particular year, the problem of assigning proper weights to these before averaging presents some difficulties. Shall the weights correspond to the production figure for each food-grain in terms of a common unit or to the value of the product ? It is difficult to choose between these two when theoretical considerations alone prevail. The universal practice is, however, to assign weights to price relatives relating to different commodities in accordance with the value of each commodity produced or consumed as the case may be. Hence in the present case the weights have been chosen in proportion to the total values as nearly as possible. The best method will be to use the appropriate weights for each year which will differ from year to year. It has not been possible to do this here and therefore fixed weights have been assigned to food-grains, namely, 16 for rice, 4 for *cholam,* 2 for *cumbu,* and 3 for *ragi.* The results are shown in the table of the next section and their variations are illustrated by graphs at the end.

6. Average of 1874-75 to 1883-84 = 100.

Year.	Rice.	*Cholam.*	*Cumbu.*	*Ragi.*	Group.
1874–75	83·2	76·4	78·0	74·7	80·7
75–76	82·4	76·8	82·9	78·9	81·1
76–77	121·0	152·2	147·3	143·0	130·7
77–78	161·0	194·3	187·4	198·9	173·0
78–79	132·4	141·2	128·8	137·1	134·1
79–80	94·8	94·3	95·8	93·8	94·7
80–81	81·3	69·7	75·9	72·3	77·9
81–82	78·5	63·7	64·4	66·7	73·6
82–83	83·0	64·2	66·1	66·7	76·7
83–84	82·3	67·7	71·3	67·8	77·3
84–85	93·5	84·6	88·3	80·7	90·1
85–86	92·9	85·4	89·0	81·5	90·0
86–87	85·1	75·0	79·4	74·6	80·8
87–88	82·7	74·1	80·5	72·7	79·9
88–89	91·9	80·6	88·5	80·9	88·5

Year.	Rice.	*Cholam.*	*Cumbu.*	*Ragi.*	Group.
89–90	98·8	81·9	91·3	81·5	93·4
90–91	104·2	91·9	100·8	88·8	100·1
91–92	120·2	124·9	132·5	125·0	122·5
92–93	119·8	117·5	120·6	114·9	118·9
93–94	107·3	107·3	115·1	102·3	107·3
94–95	101·0	92·7	94·6	89·3	97·8
95–96	96·4	85·0	86·4	80·9	91·9
96–97	114·3	115·7	108·5	108·4	113·4
97–98	134·9	146·9	136·7	140·8	137·7
98–99	107·2	101·4	106·3	107·4	106·2
1899–1900	116·3	123·1	125·7	121·1	118·7
1900–01	125·4	146·0	140·9	148·5	132·7
01–02	117·1	121·3	117·9	122·7	118·5
02–03	102·8	87·9	87·0	89·4	97·5
03–04	96·4	74·9	77·9	76·9	89·1
04–05	107·5	101·4	107·2	103·1	106·0
05–06	133·6	131·5	139·2	139·9	134·5
06–07	146·8	130·6	147·6	152·6	145·0
07–08	158·8	153·1	162·7	164·2	158·8
08–09	172·5	164·8	173·5	174·2	171·6
09–10	147·6	150·6	156·4	155·9	149·8
10–11	137·5	142·6	139·5	143·0	139·1
11–12	156·7	154·0	157·5	152·3	155·8
12–13	177·5	171·2	168·7	167·9	174·6
13–14	170·0	160·3	168·5	164·7	167·7
14–15	159·8	148·7	154·2	154·2	156·9
15–16	160·8	141·9	147·6	148·0	155·2
16–17	165·4	154·9	158·3	154·9	161·9
17–18	164·5	180·3	168·0	161·0	166·9
18–19	227·7	274·7	251·4	231·5	234·4
19–20	284·0	344·0	340·3	340·9	304·9
20–21	252·9	277·6	289·4	283·5	263·4
21–22	238·2	256·6	260·3	252·4	244·6
22–23	223·7	219·8	243·6	231·7	225·6
23–24	220·2	233·2	248·3	228·3	225·5
24–25	252·1	255·0	264·7	251·6	253·5
25–26	234·9	225·7	242·6	229·1	233·3
26–27	234·7	233·6	252·0	237·1	236·2
27–28	231·7	240·2	252·4	239·7	235·7
28–29	213·9	218·8	228·9	227·4	217·5
29–30	198·0	192·4	209·4	196·6	197·8
30–31	154·7	137·3	156·4	141·4	150·5
31–32	132·1	128·5	128·5	125·1	130·4
32–33	118·2	120·0	132·1*	122·8	120·2
33–34	98·7	102·4	121·1	93·5	100·5

* This figure is quite out of tune with the general trend; it is highly probable that this is due to some defect in the price statistics.



7. The table given above exhibits some noteworthy features :—

(*a*) The years 1877-78, 1891-92, 1897-98, 1900-01, 1908-09, 1912-13, 1919-20 marked the ends of periods of rising prices ; 1895-96, 1903-04, 1910-11, 1914-15 the ends of periods of falling prices.

(*b*) In 1919-20 prices soared very high ; in fact they topped the 300 mark.

(*c*) 1923-24 saw a significant rise in the prices of cholam and cumbu as against a fall in the prices of rice and ragi.

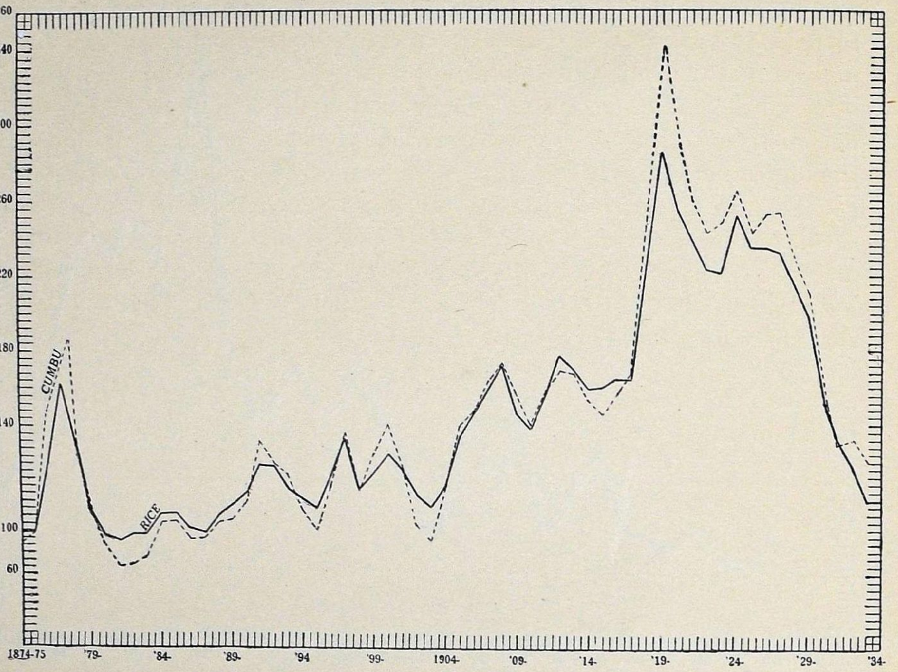
(*d*) Rice has been falling steadily from 1924-25 onwards ; the others have joined it in 1927-28.

(*e*) Periods during which there was a simultaneous rise in all the food-grains or a simultaneous fall were in general not more than 5 years in length ; the period 1927-34 of falling prices being an exception.

(*f*) In 1933-34 prices swung back roughly to the average level of the seventies of the last century.

8. An analysis of the index numbers constructed on the simple arithmetic mean basis led to the following main conclusions[2] :—

(*i*) The increase in price in periods of rising prices has been least in the case of rice and the increases in the prices of the other food-grains have not varied much from each other.



(*ii*) The fall in price in periods of falling prices has been the smallest for rice; the other three food-grains have shown falls more or less equal.

(*iii*) The price of rice has been the most stable of the four and that of cumbu the most unstable.

In the sections following, these conclusions are examined one by one in the light of the revised figures for price indices.

9. The following table shows the periods of rising prices and the amounts of increase in each period in the prices of the food-grains separately as percentages of the prices at the beginning of that period.

Period.	Rice.	*Cholam.*	*Cumbu.*	*Ragi.*
1875–78[3]	95	153	126	152
1887–92	45	69	65	72
1895–98	40	73	58	74
1898–1901	17	44	33	38
1904–09	60	63	62	69
1910–13	29	21	21	17
1917–20	73	91	102	112

2. Adyanthaya: Op. cit.

3. 1875-78 denotes the period beginning with the fasli year 1875-76 and ending with 1877-78; similarly the others.

In six out of the seven period shown above, it will be seen that the increase in price has been the least in the case of rice. Again it may be noticed that the similarity exhibited by the increases in the prices of the other three food-grains on an examination of the simple means has disappeared now. *Cumbu* shows a marked tendency to follow rice rather than the other two. In five out of the seven periods *ragi* shows the greatest rise. In one period, namely, 1910-13, it shows the least rise. Next in unsteadiness comes *cholam*; in fact *cholam* and *ragi* show a mutual affinity. The order of steadiness during rising prices may be broadly indicated as rice, *cumbu, cholam* and *ragi.* It is remarkable, however, that the rises are well-balanced in 1904-09.

10. The table below gives the corresponding figures for periods of falling prices :—

Period.	Rice.	*Cholam.*	*Cumbu.*	*Ragi.*
1877-82	52	67	66	66
1891-96	20	32	35	35
1900-04	23	49	45	48
1908-11	20	13	20	18
1912-15	10	13	9	8
1919-23	21	36	28	32
1927-34	57	57	52	61

Only in four of the seven periods can the fall in the price of rice be called the least of the four. In 1908-11 rice and *cumbu* show the greatest fall, namely 20% while *cholam* shows only 13%. In 1912-15 rice fell by 10%, while *cumbu* and *ragi* did so only by 9% and 8% respectively. In 1927-34 *ragi* fell rather steeply with rice and *cholam* following it. *Cumbu* showed the greatest stability but that too fell by 52%. In times of falling prices, therefore, it is not quite correct to say that rice is the most steady as in times of rising prices. But when prices fall we see a better harmony among the cereals other than rice than in times of rising prices.

11. The question of the most stable and the most unstable of the four food-grains may be taken up now. The co-efficient of variation is one of the best measures of variation that we possess at present and the conclusions it points to are reliable. The distribution of the index numbers for rice gives a co-efficient 37·5. *Cholam* shows 44·2; *cumbu* 42·3 and *ragi,* 44·7. It is at once observed that the most stable on the whole is rice and the most unstable is *ragi.* It may be stated then that the introduction of a system of weighting has improved the position of *cumbu*

from the most unstable to the second stablest, and put *ragi* in its stead. Rice keeps its place but *cholam* which was the second originally had to give place to *cumbu* and go to the third place. Another fact that emerges from this discussion is that *cholam* and *ragi* are remarkably akin to each other in the matter of price variations.

In conclusion, we wish to express our indebtedness to Mr. N. K. Adyanthaya for his valuable help in connection with this investigation.

The Growth of India's Population

By

S. Subramanian and S. Ramakrishnan

(Annamalai University)

1. In a paper published in the *Indian Journal of Medical Research* (July 1935) Mr. K. C. K. E. Raja has exhaustively dealt with the "Probable Trend of Population Growth in India". According to him Dr. Enid Charles' statement that 'the population of India' "is probably slowly increasing" is likely to be a serious under-estimate of the trend of events. Among the several arguments advanced by him in support of his contention, there is one which is based on the age composition of India's female population as compared with that of Ukraine. Mr. Raja has worked out the expected number of births in India if the Ukrainian specific fertility rates prevailed (by a method analogous to that of Newsholme and Stevenson for calculating "index" fertility rates) and has come to the conclusion that "the present age constitution of India is more suitable to the growth of population than that of Ukraine."

Dr. Enid Charles in her memorandum on 'The Effect of Present Trends in Fertility and Mortality upon the Future Population of England and Wales and upon its Age Composition' has, in the absence of specific fertility rates for England and Wales, assumed in her computation that 'the total births were distributed among the women of different ages in the same proportion as they were distributed in Sweden in 1931.'[1] This appears to be the better method of approximation in such cases at least for the reason that it keeps the total number of births intact. Hence it is proposed in this note to study the population of India from this standpoint. In order that we may be able to compare Mr. Raja's results with ours, we have assumed that the births in India in 1931 were distributed among women of different ages in the same proportion as they were in Ukraine in 1926-27. The graduated female populations in India in 1931 at the various ages are extracted from Table VIII of Mr. Raja's paper.

Statistics of births are available for British India and a few Indian States. The figures for the other Indian States have not been published. However, as the Report of the Public Health Commissioner for India

1. Memorandum No. 55: Published by the Royal Economic Society, p. 6

in 1933 indicates, Indian States are in intimate relationship with the different parts of British India and it is possible to estimate the number of births for the whole of India with tolerable accuracy. In fact it can be assumed that the number of births for the whole of India is to the number for British India as 1·293 : 1 for the year 1931 (judging from population statistics).

2. The table given in this section is of the same form as the Combined Fertility and Life Table given by Dr. Enid Charles for Ukraine (1926—27).[2]

Year of age.	No. of Females.	Births per Annum.	Births per 1000 Females.	Survivors per 1000 Females born *	Offspring of survivors of 1000 newly born girls.
15	3,156,509	760·5	0·2	564	0·11
16	3,058,375	5,827·4	1·9	557	1·06
17	3,004,733	51,340·6	17·1	550	9·41
18	3,001,707	210,439·4	70·2	542	38·05
19	3,056,536	453,690·1	148·3	533	79·04
20	3,134,046	621,796·7	198·4	524	103·96
21	3,199,063	714,838·0	223·5	514	114·88
22	3,216,413	739,313·2	229·9	504	115·87
23	3,175,865	743,452·9	234·1	495	115·88
24	3,100,871	733,386·9	236·5	484	114·47
25	3,006,771	713,445·3	237·3	474	112·48
26	2,908,905	686,303·3	235·9	464	109·46
27	2,822,613	653,808·0	231·6	453	104·91
28	2,751,226	647,190·4	235·2	443	104·19
29	2,684,513	578,673·7	215·6	432	93·13
30	2,617,485	538,138·5	205·6	421	86·56
31	2,545,153	496,694·6	195·2	411	80·23
32	2,462,528	455,003·8	184·8	400	73·92
33	2,249,391	413,629·0	183·9	389	71·54
34	2,249,391	372,975·3	165·8	378	62·67
35	2,132,374	333,487·0	156·4	367	57·40
36	2,021,954	295,460·6	146·1	356	52·01
37	1,928,303	259,192·2	134·4	345	46·37
38	1,857,062	223,595·5	120·4	334	40·21
39	1,801,450	192,769·4	107·1	323	34·59
40	1,753,004	162,970·5	92·9	312	28·98
41	1,703,261	135,611·2	79·6	301	23·96
42	1,643,758	110,810·0	67·4	290	19·54
43	1,570,396	88,586·8	56·4	280	15·79
44	1,488,816	69,010·6	46·4	269	12·48
45	1,405,169	56,506·3	40·2	259	10·41
46	1,325,606	37,710·4	28·4	249	7·07
47	1,256,278	25,917·2	20·6	239	4·92
48	1,200,392	16,553·9	13·8	229	3·16
49	1,153,847	9,521·4	8·3	219	1·82
	81,757,206	11,848,410·6	4,569·4		1,950·53

* This gives the probable number of survivors of 1,000 female children born in a certain year at the ages given in col. 1. See footnote 4.

2. Enid Charles: *The Twilight of Parenthood*, p. 72.

3. It is clear from the table that on an average a woman in India gives birth to 4·569 children in the course of her reproductive period. Multiplying this figure by 0·481, the sex-ratio for India[3] we arrive at an estimate of the gross reproduction rate for India at 2·20. By taking the mortality factor[4] also into consideration we obtain 0·94 as the Indian net reproduction rate. The corresponding figures for Ukraine are 2·49 and 1·68. Thus Mr. Raja's inference based on a comparison of the figures for India and Ukraine is open to objection.

A more detailed analysis of the problem is under preparation and will be published shortly.

3. Raja: *Indian Journal of Medical Research* (July 1935), p. 212.
4. *Vide* Table B. of Actuarial Report annexed to Census Report (1931) for India.

On Waring's Problem III

By

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This note is a continuation of my two previous papers with the same title.* I use the same notation as in paper II, which is referred to as R. In R, I proved that

Theorem I: If $n \geqslant 30$; $\{(3/2)^n\} \leqslant 1-(l+3)/2^n$,

then $g(n) = 2^n + l - 2$.

In this note, I prove the complementary result :

Theorem II: If $n \geqslant 30$; $\{(3/2)^n\} \geqslant 1-(l-1)/2^n$,

then (1) $g(n) = 2^n + l + j - 2$, when $\{(4/3)^n\} \geqslant 1 - r/3^n$,

and (2) $g(n) = 2^n + l + j - 3$, when $\{(4/3)^n\} < 1 - r/3^n$;

where $3^n = l \cdot 2^n + r$.

Now $3^n = l \cdot 2^n + 2^n - l - 1$

is obviously impossible when $n \geqslant 3$.

When n is even

$$3^n = l \cdot 2^n + 2^n - l - 2 \tag{1}$$

and

$$3^n = l \cdot 2^n + 2^n - l \tag{2}$$

are also impossible.

Hence, when n is even, $g(n)$ is exactly determined. When n is odd, we do not know the exact formula only when n satisfies either (1) or (2).

*1. The Annamalai University Journal, Vol. V, No. 2.

2. The Journal of the Indian Mathematical Society, New Series, Vol. II, No. 1.

The results of this paper and the succeeding one were announced by Dr. S. Chowla in a recent number of the Proceedings of the Indian Academy of Science.

Throughout the rest of the paper it is assumed that

$$\{(3/2)^n\} \geqslant 1 - l/2^n, \tag{A}$$

Lemma (1) If $3^n = l \cdot 2^n + 2^n - i$, where $i \leqslant l$,

then $4^n = j \cdot 3^n + t \cdot 2^n + ji$,

where $t \leqslant l$.

Let $4^n = j \cdot 3^n + t \cdot 2^n + f$, where $f \leqslant 2^n - 1$.

Then $4^n = (jl + j + t)\, 2^n - ji + f$.

But $ji \leqslant jl < 2^n$ and $f \leqslant 2^n - 1$.

So $f = ji$.

Lemma (2) If we put $i = l - m$,

then $ji = 2^n - t - (m+1)j$.

Now $ji = jl - jm = -(m+1)j + j(l+1)$

$$= -(m+1)j + \left\{\left(\frac{4}{3}\right)^n - \frac{t \cdot 2^n}{3^n} - \frac{ji}{3^n}\right\}\left\{\left(\frac{3}{2}\right)^n + \frac{i}{2^n}\right\}$$

[from lemma (1)]

$$= -(m+1)j + 2^n - t - \frac{ji}{2^n} + \frac{ji}{2^n}$$

$$= 2^n - t - (m+1)j.$$

Lemma (3) If $n \geqslant 30$; $h = [d - (4/3)^n + 1]$,

then $j > h + 5$.

Now $j > h + 5$,

if $(4/3)^n > h + 6$,

or if $(4/3)^n > 5(5/4)^n + n\{5 1/6 \ \log n + 3 \cdot 2\} - 1$

or if $(16/15)^n > 5 + (4/5)^n\{n(5 1/6 \ \log n + 3 \cdot 2) - 1\}$.

Since $n \geqslant 30$, it can be easily verified that the last inequality is satisfied.

So the lemma follows.

Lemma (4) If $m \geqslant 1$,

then $j + t + ji - 1 \leqslant 2^n - h - 3$.

From lemma (2), the result is true,

if $$j + t + 2^n - t - (m+1)j - 1 \leqslant 2^n - h - 3,$$

or if $mj \geqslant h + 4$,

or if $m \geqslant (h+4)/j$,

or if $m \geqslant 1$, [from lemma (3)].

Lemma (5) If $K \geqslant h + 4$,

then $$2^n - K + 1 \leqslant 2^n - h - 3.$$

Lemma (6) If $K \leqslant ji$,

$$4^n - K \geqslant j \cdot 3^n + t \cdot 2^n$$

Lemma (7) If $m \geqslant 1$, there is a positive integer K such that every integer between $4^n - K$ and $4^n + 2^n - K$ requires at most $2^n - h - 3$, nth powers.

Put $K = h + 4$.

Then every integer between 4^n and $4^n + 2^n - K$, requires at most $2^n - K + 1$; $(= 2^n - h - 3)$, nth powers.

Again $K = h + 4 < j \leqslant ji$, [from lemma (3)]

So every integer between $4^n - K$ and 4^n, requires at most $j + t + ji - 1$ or $2^n - h - 3$, nth powers. [from lemma (4)]

Combining the above two results, we get the lemma.

Lemma (8) Every integer greater than $j \cdot 3^n + t \cdot 2^n$ requires at most $2^n + l + j - 3$, nth powers.

From lemma (8) in R and lemma (7), every integer between $4^n - K$ and β requires at most $2^n - h - 3 + \delta$, nth powers.

But $2^n - h - 3 + \delta \leqslant 2^n + l + j - 3$.

From this and lemma (15) in R, the present lemma follows.

Now we shall prove our theorem.

Consider $N = j \cdot 3^n + t \cdot 2^n - 1 = j \cdot 3^n + (t-1)\ 2^n + 2^n - 1$.

If $j \cdot 3^n + t \cdot 2^n - 1 \leqslant 4^n - 1$,

then N requires exactly $2^n + t + j - 2$, nth powers.

Therefore, if $j \cdot 3^n + l \cdot 2^n - 1 \leqslant 4^n - 1$,

that is, if $\{(4/3)^n\} \geqslant \dfrac{l \cdot 2^n}{3^n} = 1 - r/3^n$,

then N requires exactly $2^n + l + j - 2$, nth powers. (3)

Every integer less than $j \cdot 3^n + l \cdot 2^n - 1$

can be put in the form

$$\mu \cdot 3^n + \upsilon \cdot 2^n + \omega,$$

where $\mu \leqslant j$; $\upsilon \leqslant l$; $\omega \leqslant 2^n - 1$

and $\mu + \upsilon + \omega \leqslant 2^n + l + j - 3$.

But from R, we know that

$$N = (j-1)\,3^n + (l-1)\,2^n + 2^n - 1$$

requires exactly $2^n + l + j - 3$, nth powers. (5)

By combining (3), (4), (5) and lemma (7), we get theorem II.

On Waring's Problem IV

By

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In Vol II. No. 1 (New series) of the journal of the Indian Mathematical Society, I have proved that when $8 \leqslant n \leqslant 100$,

$$g(n) = 2^n + l - 2.$$

The object of this paper is to prove that

$$g(7) = 143.$$

Throughout $n \geqslant 6$, $t = 2n + 1$, $\mathfrak{f} = \frac{2}{t}$.

(The above paper is referred to as R.)

SECTION I.

Singular Series.

In this section, the notation in Landau's Vorlesungen uber Zahlen theorie is used,

and L·301 means satz 301 in that book.

$s = 2n + 1$. Instead of k in L, n is used here.

Lemma (*a*) $\chi_p \geqslant 1/\mathrm{P}^{-(r+1)}$.

This follows from L·301.

Lemma (*b*) When p does not divide n,

$$\chi_p \geqslant 1 - \frac{2}{p^n} - |\ \mathrm{A}(p)\ |$$

Let $l = mn + r$, $1 \leqslant r \leqslant n$.

From page 237 · L.,

$$| A(p^l) | = | p^{-ls} \Sigma \underset{\varrho}{S}^{s} \cdot \varrho^{-n} | \leqslant p^{l(1-s)} | \underset{\varrho}{S}^{s} |$$

$$\leqslant p^{l(1-s)} \cdot p^{m(n-1)s} | \underset{\varrho}{S^s} p^{mn} | \qquad (L \cdot 312)$$

$$\leqslant p^{l-s(m+1)} \cdot p^s \text{ or } p^{l-s(m+r)} \cdot p^{(r-1)s} \qquad (L \cdot 307)$$

$$= p^{l-sm} \text{ or } p^{l-s(m+1)}$$

$$= p^{-m(s-n)+1} \text{ or } p^{-m(s-n)-s+r}$$

according as $r = 1$ or $\geqslant 2$.

So

$$| \sum_{l=n+1}^{\infty} A(p^l) | = | \sum_{m=1}^{\infty} \sum_{r=1}^{n} A(p^{mn+r}) |$$

$$= \sum_{m=1}^{\infty} p^{-m(s-n)} \left\{ p + \sum_{r=2}^{n} p^{r-s} \right\}$$

$$\leqslant p^{n-s} \left\{ p + p^{-s} \frac{p^{n+1}-1}{p-1} \right\} \left\{ 1 - p^{n-s} \right\}^{-1}$$

Again

$$| \sum_{l=2}^{n} A(p^l) | \leqslant \sum_{l=2}^{n} p^{l(1-s)} \cdot p^{(l-1)s} = p^{-s} \cdot \frac{p^{n+1}-1}{p-1}.$$

Hence

$$| \sum_{l=2}^{\infty} A(p^l) | \leqslant p^{n-s} \cdot 2p = \frac{2}{p^n}.$$

Since $\chi_p = 1 + \sum_{t=1}^{\infty} A(p^l)$, from the above the lemma follows.

* *Lemma* (c) $\wp \geqslant e^{-98}$. $\{\wp = \wp \ (7)\}$

From lemma (a),

$$\log (\chi_7 \cdot \chi_{29} \cdot \chi_{43}) \geqslant \log 7^{-18} \cdot 29^{-8} \cdot 43^{-8} > -92 \cdot 18.$$

* '$\wp$' stands for the Greek capital letter which represents the singular series in Landau's Zahlen theorie.

$$\log \chi_{71} > -\log 3 > -1 \cdot 1.$$

$$A(71) \leqslant 6^{15}/71^{13/2} < \frac{1}{2} - 2/71^7.$$

So when $72 < p < 216$,

$$|\ A(p)\ | < \frac{1}{2} - 2/p^7.$$

Hence if $\Pi_1 = \chi_{113} \cdot \chi_{127} \cdot \chi_{197} \cdot \chi_{211}$

$$\log \Pi_1 \geqslant -3 \cdot 5.$$

When $p \equiv 1 \pmod{7}$, $p \geqslant 216$,

$$\chi_p \geqslant 1 - 2/p^7 - 1/p^{3/2}.$$

Let $\Pi_2 = \prod_p \chi_p \quad \{p \equiv 1 \,(\text{mod. } 7),\ p \geqslant 216)\}.$

$$\log \Pi_2 \geqslant \sum_{p > 216} \log (1 - 1/p^{3/2} - 2/p^7) > - \cdot 3.$$

Let $\Pi_3 = \Pi\, \chi_p \quad \{\, p$ is not congruent to 0, or $1 \,(\text{mod. } 7)\,\}$.

Then $A(p) = 0$.

So $\log \Pi_2 = \Sigma \log (1 - 2/p^7) > - \cdot 02$

Hence

$$\log \mathfrak{S} > -98.$$

SECTION II.

Lemma (*d*) Every integer between 10016578 and 10016706 is a sum of 51, 7th powers.

This follows from the following :

$10016578 = 10^7 + 6 \cdot 3^7 + 27 \cdot 2^7$ 34

$10016589 = 10^7 + 7 \cdot 3^7 + 10 \cdot 2^7$ 18

$10016623 = 9^7 + 6 \cdot 7^7 + 6^7 + 4 \cdot 3^7 + 29 \cdot 2^7$ 41

$10016634 = 9^7 + 6 \cdot 7^7 + 6^7 + 5 \cdot 3^7 + 12 \cdot 2^7$ 25

$10016640 = 10^7 + 4^7 + 2 \cdot 2^7$ 4

$10016682 = 4 \cdot 8^7 + 7^7 + 2 \cdot 6^7 + 3 \cdot 5^7 + 4 \cdot 3^7 + 12 \cdot 2^7$ 26

Lemma (*e*) Every integer between 10016578, and $10016706 + 37961407$ is the sum of 85, 7th powers.

This follows from lemma (*d*) and lemma (*b*) in R.

Lemma (*f*) Every integer $\leqslant 10016578$ is the sm of 143, 7th powers.

This can be easily verified.

Lemma (*g*) Every integer $\leqslant \alpha$, when $\log \log \alpha = 12 \cdot 548$, is the sum of 143, 7th powers.

This follows from lemmas (*d*) and (*e*) and lemma (7) in R.

SECTION III.

In this section, I closely follow R. For the sake of convenience, even the numbering is kept the same. In the course of the argument the conditions marked by A, B, etc., are assumed to be satisfied and in the end it is shown that they are actually satisfied. Letters and symbols have got the same meaning as in R, unless otherwise mentioned. I indicate only the alterations which we require in R; the rest is exactly as in R.

$n \geqslant 6$ and $n \neq 2^r$; $t = 2n + 1$; $f = \nu$; $\nu = 1/n$.

A Conditions marked (3) in R.

Lemma (2) $|B_{a,q}| \leqslant n^{12}/q^f$.

(*a*) As in R, when $p \mid n$,

$$|B_{a,q}| \leqslant n/q^f \quad (4)$$

(*b*) When p does not divide n

$$|B_{a,q}| \leqslant (q_2{}^n Q)^{-\nu} \prod_p |B_{a,p}|$$

But $\quad | B_{a,p} | \leqslant (n-1)/\sqrt{p} \leqslant 1/p^f,$

$$\text{if} \quad p \geqslant (n-1)^{\frac{2n}{n-2}} = \lambda. \quad \text{(Say)}.$$

$$\text{Let} \quad \Pi = \prod_p p^f \quad \{p \equiv 1 \, (\text{mod. } n), \, p \leqslant \lambda\}$$

$$\text{Then} \quad \log \Pi \leqslant f \cdot \frac{\lambda}{n} \log \lambda = \frac{(n-1)^{\frac{2n}{n-2}}}{n^2} \times \frac{2n}{n-2} \log (n-1)$$

$$\leqslant \frac{125}{12} \log n < 11 \log n.$$

So in this case also

$$| B_{a,q} | \leqslant n^{11} \tag{5}$$

From (4) and (5) the lemma follows.

Lemma (3) $\quad A_q(N) = \theta\{n^{12t}/q^{1+f}\}$.

This follows easily from lemma (2).

Lemma (5) $\quad \mathfrak{S} \geqslant 1/B$.

Where B is a constant depending on n alone. This is assumed.

3·1. *The numbers u.* Trivial refinement of argument in R will give that

$$X > p^{n-1-\sigma}/n^{n-1} \tag{26}$$

and $\quad X_1 > P^{(1-\nu/2)(n-1-\sigma)}/n^{n-1} \quad (27)$

3·3 $\quad A = 2n^{12} Z q^{-f} \quad (37)$

$$r_1 = 5Z^{-1} q^{1+f}/(2n^{12}).$$

$$t r_1 \leqslant \frac{5t}{2n^{12}} \cdot \frac{P^{(1+f)/2}}{(2n 3^{n-1} P^{n-\frac{1}{2}})^{\nu}} < P^{-\frac{1}{4}} \tag{38}$$

B $\quad$ if $\quad P^{\frac{1}{4}} > 1.$

Then upto (52), no alteration is required. For (53), we get

$$E_y = \theta\{n^{12t} X^2 X_1 R q^{-2-\nu}\} \tag{53}$$

$$\int_0^{\tau^{-1}} z^t dz = \theta(2P^{t-n}) \tag{54}$$

$$\int_0^{\tau^{-1}} Z^t \mid z \mid dz = P^t \int_0^{P^{-n}} \mid z \mid dz + \int_{P^{-n}}^{\tau^{-1}} \mid z \mid^{1-\nu t}$$

$$= \frac{P^{t-2n}}{2} + n \cdot P^{t-2n} \tag{55}$$

Hence from (51) in R and (54), (55), (37),

$$L = \theta\{X^2 X_1 R P^{-1/4} 2^t \cdot n^{12t} q^{-2-f}\}\{20 \int_0^{\tau^{-1}} Z^t dz + 44 \int_0^{\tau^{-1}} 3^n P^n Z^t \mid z \mid dz\}$$

$$= \theta\{2^t \cdot n^{12t} X^2 X_1 R P^{-1/4} q^{-2-f}\}\{40 P^{t-n} + 44(n + \tfrac{1}{2}) 3^n P^{t-n}\}$$

$$= \theta\{48 \cdot 2^t \cdot n^{12t+1} \cdot 3^n \cdot X^2 X_1 R P^{t-n-1/4} q^{-2-f}\} \tag{56}$$

$$\sum_{q<\sqrt{P}} \sum_a q^{-2-\nu} \leqslant \sum_{q<\sqrt{P}} q^{-1-\nu} < n \tag{57}$$

Since $n \geqslant 7$ we see that (6)

$$48 \cdot 2^t \cdot 3^n \cdot n^2 = \theta(n^t) \tag{58}$$

So from (56)—(58), we get

$$\sum_{q \leqslant \sqrt{P}} \sum_a L = \theta\{n^{13t} \cdot X^2 X_1 R P^{t-n-1/4}\} \tag{59}$$

Therefore

$$H_{y,1} = Q_y D_y + \theta\{n^{13t} X^2 X_1 R P^{t-n-1/4}\} \tag{60}$$

3·4. *Estimation of* Q_y.

Upto (68), no alteration is required.

$$\mid S_2 \mid \leqslant \mid Q_y \mid X^2 X_1 R \sum_{q=2}^{\sqrt{P}} n^{12t} q^{-2-\nu} \sum_a \mid \sum_N \mid E\{-2\pi i a N/q\} \mid,$$

{from (52), (53).}

$$\leqslant \tfrac{1}{2} n^{12t} \mid Q_y \mid X^2X_1R \sum_{q=2}^{\sqrt{P}} q^{-2-\nu} \sum_q (q/a)$$

$$< \tfrac{1}{2} n^{12t} \mid Q_y \mid X^2X_1R \sum_{q=2}^{\sqrt{P}} \frac{\log q + 1}{q}.$$

$$< \tfrac{1}{2} n^{12t} \mid Q_y \mid X^2X_1R \left\{ \tfrac{1}{2} \times \frac{\log^2 P}{4} + \tfrac{1}{2} \log P \right\}$$

$$< \tfrac{1}{8} n^{12t} \mid Q_y \mid X^2X_1R \ \log^2 P \tag{69}$$

Hence from (67R), (68R) and (69)

$$\Sigma\, Q_yD_y \leqslant Q_yX^2X_1R\{N_0P^{-\frac{1}{4}} + \theta(1) + \theta(\tfrac{1}{8} n^{12t}\log^2 P)\}$$

$$\leqslant 2Q_yX^2X_1R \cdot 3^n \cdot P^{n-\frac{1}{4}} \tag{70}$$

C if $\dfrac{n^{12t} \log^2 P}{8} \leqslant \dfrac{3^n \cdot P^{n-\frac{1}{4}}}{2}$.

Hence from (60) and (70),

$$\sum_N H_{y,1} \leqslant 2 \cdot 3^n Q_y X^2X_1RP^{n-\frac{1}{4}} + \theta\{n^{13t}X^2X_1RP^{t-n-\frac{1}{4}}\}, \tag{71}$$

and

$$\left| \sum_N H_{y.2} \right| \leqslant n \cdot 3^n \cdot XX_1RP^{t+n-1\frac{1}{2}}$$

$$\leqslant n^n \cdot 3^n X^2X_1RP^{t-\frac{1}{2}+\sigma}; \text{ from (26)} \tag{72}$$

Hence arguing as in R, from (71), 62 R), (64 R) and (72), we get that

$$2 \cdot 3^n \cdot Q_yX^2X_1RP^{n-\frac{1}{4}}$$

$$\geqslant \frac{1}{n} X^2X_1RP^{t-\frac{1}{4}}\{2 - n^{n+1} \cdot 3^n \cdot P^{\sigma-\frac{1}{4}} - n^{13t+1}P^{-n}\}.$$

$$\geqslant \frac{1}{n} X^2X_1RP^{t-\frac{1}{4}};$$

provided

D $P^{\frac{1}{4}-\sigma} \geqslant 2 \cdot 3^n \cdot n^{n+1}$.

E and $P^n \geqslant 2 \cdot n^{13t+1}$.

Hence

$$Q_y \geqslant P^{t-n}/(2n3^n). \quad (75)$$

$$3\cdot 5. \quad \Big| \sum_{N2} \sum_{q>\sqrt{P}} A_q(N_2) \Big| \leqslant X^2 X_1 R n^{12t} \sum_{q>\sqrt{P}} q^{-1-f}$$

$$\leqslant X^2 X_1 R n^{12t+1} P^{-f/2} \leqslant (1-1/\sqrt{2}) X^2 X_1 R B^{-1},$$

F if $P^{1/(2n)} \geqslant 4n^{12t+1}B$.

Therefore from § 3·5 R,

$$Q_y D_y \geqslant \frac{X^2 X_1 R P^{t-n}}{2\sqrt{2}\cdot n\cdot 3^n B} = M, \quad \text{(say)} \quad (78)$$

Hence from (60) and (78),

$$H_{y,1} \geqslant X^2 X_1 R P^{t-n}/(4n3^n) B, \quad (79)$$

provided

$$n^{13t} X^2 X_1 R P^{t-n-1/4} \leqslant M\left(1-\frac{1}{\sqrt{2}}\right)$$

G or $P^{1/4} \geqslant 8\sqrt{2}\cdot 3^n \cdot n^{13t+1} B$.

$$3\cdot 6. \; H_1 \geqslant \frac{X^2 X_1 R Y P^{t-n}}{4n3^n B}. \quad (82)$$

Let $f(c)$ denote the number of solutions of

$$c = y^n - y_1^n, \; 0 \leqslant y \leqslant Y,$$

$$0 \leqslant y_1 \leqslant Y.$$

Then $f(c) \leqslant Y$.

$$S_2 \leqslant \sum_y \sum_{y_1} \tfrac{1}{2}(\alpha c)^{-1} \quad c = y^n - y_1^n \neq 0,$$

$$= \tfrac{1}{2} \sum_c f(c) \left(\frac{ac}{q} + \frac{\theta c}{q\tau}\right)^{-1}$$

$$\leqslant q \sum_c f(c) \times \frac{1}{s} \quad s \leqslant q$$

$$\leqslant Yq \sum_s \frac{1}{s}, \qquad s \leqslant Y \quad \{s \text{ is different for different } c\}$$

$$\leqslant Yq(\log Y + 1)$$

$$\leqslant Yq\left(\frac{\nu - \nu^2}{2} \log P + 1\right)$$

$$\leqslant \frac{Yq}{2n} \log P,$$

provided

H $$\log P \geqslant 2n^2$$

Since $q \leqslant \tau$,

$$S_2 \leqslant 3^{n-1}\, Y\, P^{n-\frac{1}{2}} \log P.$$

But $S_1 = 2^n R^n Y \leqslant 2^n P^{n-\frac{1}{2}} \cdot Y$

So, $S_1 + S_2 \leqslant Y\, P^{n-\frac{1}{2}} (3^{n-1} \log P + 2^n)$

$$\leqslant \frac{3^n}{2} Y\, P^{n-\frac{1}{2}} \log P. \tag{84}$$

Hence, $K = \sum V_\nu S_\nu \leqslant \sqrt{\left\{ \frac{3^n}{2} X_1 R Y P^{n-\frac{1}{2}} \log P \right\}}$

Therefore

$$|H_2| \leqslant 3 \cdot K P^{t-2} \int_0^1 V^2 S^2 d\alpha$$

$$= 3 \cdot K X P^{t-1}$$

$$\leqslant \frac{3^{\frac{n+2}{2}}}{\sqrt{2}} X X_1^{1/2} Y^{1/2} R^{1/2} P^{t+n/2-5/4} \sqrt{(\log P)} \tag{84a}$$

Now, from (82) and (84*a*),

$$|H_2| \leqslant \frac{1}{2} H_1,$$

$$\text{if} \quad \frac{3^{\frac{n+2}{2}}}{\sqrt{2}} \cdot P^{n/2-5/4} (\log P)^{1/2} \leqslant XX_1^{1/2} Y^{1/2} R^{1/2} P^{-n} / (8n3^n) B$$

$$\text{or if} \quad XX_1^{1/2} \geqslant 8n3^{\frac{3n+2}{2}} \cdot P^{\frac{3n}{2} - \frac{7}{4} + \nu 2/2} (\log P)^{1/2} B$$

$$\text{or if} \quad \frac{P^{n-1-\sigma}}{n^{n-1}} \times \frac{P^{(1-\nu/2)(n-1-\sigma)/2}}{n^{(n-1)/2}}$$

$$\geqslant 24 \cdot n \cdot 3^{3n/2} P^{\frac{3n}{2} - \frac{7}{4} + \nu 2/2} \times (\log P)^{1/2} B$$

$$\text{I or if} \quad P^{1/(4n) - 1/(4n^2) - 3\sigma \ (1-1/6n)/2} \geqslant 24 \cdot 3^{3n/2} n^{(3n-1)/2} B (\log P)^{1/2} \tag{86}$$

Hence

$$I_{N_0} > 0$$

3·7. *Lemma* (15) If N_0 satisfies all conditions from A to I then N_0 is the sum of

$$t + 3k - 2,$$

nth powers, where k is chosen suitably.

SECTION IV.

Proof of the main theorem.

In this section, we put $n = 7$ and $k = 43$.

Then $t = 15$

$\mathfrak{S} \geqslant 1/e^{98}$ from section I.

$3\sigma(1 - 1/6n)/2 \leqslant 1/73 \cdot 24$

$$\text{and} \quad \frac{1}{4n} - \frac{1}{4n^2} - \frac{3\sigma}{2}(1 - 1/6n) > \cdot 016958$$

Let $\log \beta = 60000.$ (87)

Then, if $N_0 > \beta$, we can easily verify that all the conditions from A to I are satisfied.

Therefore, from lemma (15), it follows that, every integer greater than β is the sum of 142, 7th powers (88)

Now $\log\log\beta < 12$ (89)

But from lemma (g),

$$\log\log\alpha \geqslant 12\cdot 5. \tag{90}$$

Therefore from lemma (g) and (88), it follows that

$$g(7) \leqslant 143.$$

But we know that

$$g(7) \geqslant 143.$$

Hence

$$g(7) = 143.$$

Bhartṛhari a Bauddha ?[1]

By

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Some students of Sanskrit literature are under the delusion that there existed at least two different authors with the name Bhartṛhari, of whom one, the author of the famous *Śatakas,* was a Hindu and the other, the author of the *Vākyapadīya,* was a Bauddha.[2] It is proposed, in this short paper, *to refute the view that the author of the Vākyapadīya was a Buddhist.*

The view that the author of the *Vākyapadīya* was a Buddhist is mainly based upon Itsing's statement. His account[3] that Bhartṛhari entered into the monastery seven times, returned to the world and lived the life of a layman, shows that he was a Buddhist mendicant *at least for some time.* In that case, he must have written the *Vākyapadīya* either before he became a *Bauddha* or after his reversion to *Brahmanism,* since the work clearly indicates that Brahmanical convictions of its author, as will be shown in the sequel. It is also possible that Itsing's statement was based on mere hearsay.[4]

Another main reason advanced by these critics to call Bhartṛhari a Buddhist is Vācaspatimiśra's reference in his *Tattvabindu*[5] to a verse found in Bhartṛhari's *Vākyapadīya,* kāṇḍa I[6] with the prefatory note—*yadāhuḥ bāhyāḥ api.* An honest attempt is now being made by scholars to trace some verses in the *Vākyapadīya* to some ancient sources like Vyāḍi's *Saṅgraha* and the *Mahābhārata.*[7] It is not therefore impossible that Bhartṛhari and Vācaspatimiśra borrowed the verse in question from

1. A part of this paper was read at the Eighth All-India Oriental Conference, Mysore, in December, 1935.

2. *Vide* Pathak's paper, '*Was Bhartṛhari a Buddhist ?*', JBBRAS. Vol. XVIII ; Keith's History of Sanskrit Literature, p. 176.

3. *A Record of Buddhistic Religion,* pp. 178-180.

4. See Dr. C. K. Raja's paper on '*Itsing and Bhartṛhari's Vākyapadīya*', (Dr. S. Krishnaswami Aiyangar Commemoration Volume, 1936, pp. 285-298) where the author makes to call in question Itsing's date of Bhartṛhari.

5. See the *Tattvabindu* (Annamalai University Sanskrit Series, No. III), p. 70.

6. Verse 35, p. 17 (Benares Edition).

7. *Vide* Cārudeva Śāstri's edition of the *Vākyapadīya,* kāṇḍa I, last page and his paper on '*Bhartṛhari : a critical study of the Vākyapadīya.*' (Proceedings of the Fifth All-India Oriental Conference, Lahore), pp. 630-655.

an ancient Buddhistic source, since there is no denying the fact that many Buddhistic works have influenced those on Hindu philosophy. Even granting that Vācaspatimiśra borrowed it from Bhartṛhari, the term *bāhya* need not necessarily mean a Buddhist. It may mean one who is *alien* (to the speaker)—its literal sense. In the *Tattvabindu,* Vācaspatimiśra, following the famous Mīmāṁsā Vārttikakāra Kumārilabhaṭṭa, refutes the Sphoṭa doctrine (as maintained by Maṇḍanamiśra in his *Sphoṭasiddhi*) and holds the view that varṇas are *arthapratyāyakas.* And it is not quite unnatural to call by the term *bāhya* the exponent of the Sphoṭa doctrine in the science of Sanskrit Grammar, especially when he advocates the *Varṇavāda,* which should be accepted by all Mīmāṁsakas including Maṇḍanamiśra.

A more decisive argument going against Bhartṛhari's Buddhistic faith is the quotation of a verse from Bhartṛhari's *Vākyapadīya,* kāṇḍa III, by Pratyagrūpa, the celebrated commentator on Citsukhācārya's *Tattvapradīpikā,** who refers to Bhartṛhari with the honorific title—*brahmavitprakāṇḍa* :— "अत एव धातुसमीक्षायां ब्रह्मवित्प्रकाण्डैः भर्तृहरिभिरभिहितम् —

शुद्धतत्त्वं प्रपञ्चस्य न हेतुरनिवृत्तितः ।
ज्ञानज्ञेयादिरूपस्य मायैव जननी ततः ॥ "

(*Nayanaprasādinī,* N. S. Ed., 1915, p. 60.)

This is an unmistakable proof of Bhartṛhari's Advaitic faith.

A close study of the Brahmakāṇḍa of the *Vākyapadīya* would convince even a casual reader that the author, Bhartṛhari, is a great monistic philosopher, accepting *śabda* as the ultimate reality of the world. Careful students of Indian Philosophy are aware of the fact that the Upaniṣads, which are otherwise known as *Vedānta,* contain expositions of three kinds of Monism—*śabda-monism, vijñāna-monism* and *sattā-monism* ; and it may be noted that Patañjali and Bhartṛhari developed and systematised the *śabda-monism* in their works on grammar, just as Buddha and his disciples and Śrī Saṅkarācārya and his commentators systematised respectively the *vijñāna-monism* and *sattā-* or *Brahman-monism,* the latter having further synthesised all these phases of Monism and presented them as *Ātman-monism.*

The five opening verses of the *Vākyapadīya,* which explain the *anubandhacatuṣṭaya,* give the essence of Bhartṛhari's monistic philosophy. He belongs to the school of Vivartavāda[8] which is one of the

*For this reference I am indebted to my friend Dr. T. R. Chintamani, M.A., Ph.D., Senior Lecturer in Sanskrit, Madras University.

8. *Vivartavādins* explain this universe as a *vivarta* (seeming manifestation) of Brahman, without any separate reality behind it except that of Brahman, in con-

basic doctrines of Śaṅkara's monistic system ; and this gives him a very high place as a *pre-Śaṅkara Advaitin* in the history of Indian Philosophy. His characterisation of *Śabda brahman*,[9]—as one that has neither beginning nor end, as the essence of śabda or speech, as the cause of the audible varṇas, as manifesting itself in the form of the phenomenal world, as the only efficient cause of this Universe—mostly resembles Śaṅkarācarya's description of Brahman in his *Jijñāsādhikaraṇabhāṣya* and *Janmādyadhikaraṇabhāṣya*.[10] What is known in the Upaniṣads as *eka-advitīya-brahman* is ordinarily experienced by all in different forms ; and this, Bhartṛhari says, is due to various *upādhis*[11]—limiting conditions imposed on Brahman. Hence the experiences representing the six stages of the phenomenal world—birth, existence, transformation, growth, decay and destruction—present the characteristics of *kālaśakti* which is popularly known as *māyā* or *avidyā* in Śaṅkara's monistic system. As the Advatins say, this *kālaśakti* possesses different and sometimes opposite properties like *sattva* and *asattva* and consequently, this Universe appears differently as *bhoktṛ, bhoktavya* and *bhōga*. It is again through this *kālaśakti* that the Absolute Brahman manifests itself in the form of this manifold world. It is on the ground of its extraordinary nature that this *kālaśakti* or *māyā* is generally described

trast with the school of *pariṇāmavādins* who accept the transformation of Brahman into this phenomenal world with separate reality. Cf. अतात्त्विकान्यथाभावोविवर्तः। तात्त्विकान्यथाभावः परिणामः ॥

'अनादिनिधनं ब्रह्म शब्दतत्त्वं यदक्षरम् ।
विवर्ततेऽर्थभावेन प्रक्रिया जगतो यतः ॥ (*Vākyapadīya*, K. I. V. 1.)

10. "अस्ति तावद्ब्रह्म नित्यशुद्धबुद्धमुक्तस्वभावं सर्वज्ञं सर्वशक्तिसमन्वितम्; ब्रह्मशब्दस्य हि व्युत्पाद्यमानस्य नित्यशुद्धत्वादयोऽर्थाः प्रतीयन्ते, बृहतेर्धातोरर्थानुगमात् । सर्वस्यात्मत्वाच्च ब्रह्मास्तित्वप्रसिद्धिः"........जिज्ञासाधिकरणभाष्यम् ॥ "अस्य जगतो नामरूपाभ्यां व्याकृतस्य अनेककर्तृभोक्तृसंयुक्तस्य प्रतिनियतदेशकालनिमित्तक्रियाफलाश्रयस्य मनसाप्यचिन्त्यरचनारूपस्य जन्मस्थितिभङ्गं यतः सर्वज्ञात्सर्वशक्तेः कारणात् भवति तद्ब्रह्म इति वाक्यशेषः।...........जन्माद्यधिकरणभाष्यम् ॥

11. 'एकमेव यदाम्नातं भिन्नं शक्तिव्यपाश्रयात् ।
अपृथक्त्वेऽपि शक्तिभ्यः पृथक्त्वेनेव वर्तते ॥
अध्याहताः कला यस्य कालशक्तिमुपाश्रिताः ।
जन्मादयो विकाराः षड् भावभेदस्य योनयः ॥
एकस्य सर्वबीजस्य यस्य चेयमनेकधा ।
भोक्तृभोक्तव्यरूपेण भोगरूपेण च स्थितिः ॥
(*Vākyapadīya*, kāṇḍa I, verses 2-4).

by Śāstrakāras as *anirvacanīya*—neither *sat* nor *asat,* neither separate from, nor identical with, the Absolute.[12] The acceptance of such an eternal reality viz. *Śabda brahman* and the explanation of the phenomenal world as the seeming manifestation of the eternal reality by the power of *kālaśakti,* go against the view that Bhartṛhari, the author of the *Vākyapadīya,* was a Buddhist, *since no Buddhist is known as yet to have accepted anything as eternal.*

Again, Bhartṛhari's masterly elucidation of the *āgamaprāmāṇya*[13] in this section of the *Vākyapadīya* contains *a direct proof of Bhartṛhari's non-Buddhistic faith.* Following the hoary traditions of the Vedic seers, Bhartṛhari speaks out as a great champion of Hindu religion and philosophy his firm belief and conviction that *āgama*—Vedas, Smṛtis, etc.—is the sole authority on *dharma* which is transcendental and as such, cannot be understood by other pramāṇas like *pratyakṣa* and *anumāna.*[14] In this connection he revels in the glorification of the Vedas in that they as self-revelations, explain the mystic nature of *dharma* and *mokṣa.* He strongly asserts that mankind cannot find better means than the Vedas for understanding the hidden truth of this Universe. Man may naturally rely on his fertile and powerful reason but it has not only not helped him but has even spoiled him, firstly because it has not given him any

12. "सत्त्वे न भ्रान्तिबाधौ स्तां नासत्त्वे ख्यातिबाधकौ ।
'सदसद्भ्यामनिर्वाच्याविद्या वेद्यैः सह भ्रमाः " ॥
Iṣṭasiddhi, I. 9, p. 47, G. O. Series.

Compare the *Vibhramaviveka.* Verse 29.
'सदसद्भ्यामनिर्वाच्यां तामविद्यां प्रचक्षते ' ॥
'सा चानिर्वचनीयत्वादस्ति नास्तीति चोच्यते ।
शून्ये तु बुद्धिशब्दानां प्रवृत्तिर्न कथञ्चन ॥'
Iṣṭasiddhi, I.20, G. O. Series, Vol. 65, p. 192.
'तवासन्न तु मायैव वाच्यातस्सदसद्भिदा ।
सदसद्भ्यामनिर्वाच्यां मायां तां मा विजीघटः ॥' (*Ibid.,* I. 68, p. 165.)

13. प्राप्त्युपायोऽनुकारश्च तस्य वेदो महर्षिभिः ।
एकोऽप्यनेकवर्त्मेव समाम्नातः पृथक्पृथक् ॥
(*Vākyapadīya,* kāṇḍa I, verse 5.)

14. न चागमादृते धर्मस्तर्केण व्यवतिष्ठते ।
ऋषीणामपि यज्ज्ञानं तदप्यागमपूर्वकम् (*Ibid.,* verse 30.)
न जात्वकर्तृकं कश्चिदागमं प्रतिपद्यते ।
बीजं सर्वागमापाये त्रय्येवादौ व्यवस्थिता ॥ (*Ibid.,* verse 134.)
अस्तं यातेषु वादेषु कर्तृष्वन्येष्वसत्स्वपि ।
श्रुतिस्मृतिगतं धर्मं लोको न व्यतिवर्तते ॥ (*Ibid.,* verse 135.)

satisfactory solution for many vital problems of this world ; and secondly because it leaves behind a residue of doubt in him so much so that he is disinclined to accept the solution given in the Vedas for these puzzling problems. Bhartṛhari lays down the general principle that on questions of super-normal character, *āgama* or *śāstra* is the only authority and *tarka* is unreliable ;[15] for, however great might be a man's intellectual attainment, his well-thought-out syllogism will in no time be proved fallacious by a greater intellectual giant.[16] He adds[17] that a man who trusts his reason in transcendental matters is for ever doomed just as a blind man who feels his way only by touch through the slope of a huge precipice and advances further is destined to death by an instantaneous fall. Tarka or anumāna has only a timely effect by helping a man in examining his belief, but it fails often to convey the truth. Tarka may be accepted as an accessory to *āgama,* but it should not direct its path against *āgama,* cf. *vedaśāstrāvirodhī ca tarkaścakṣurapaśyatām.* (*Vākyapadīya,* kāṇḍa I, verse 137). This is an important view that has been endorsed by the Upaniṣads and established by Śaṅkarācārya and his followers.[18]

15. धर्मस्य चाव्यवच्छिन्नाः पन्थानो ये व्यवस्थिताः ।
न ताँल्लोकप्रसिद्धत्वात्कश्चित्तर्केण बाधते ॥ (*Vākyapadīya,* verse 31.)

16. यत्नेनानुमितोऽप्यर्थः कुशलैरनुमातृभिः ।
अभियुक्ततरैरन्यैरन्यथैवोपपाद्यते । (*Ibid.,* verse 34.)

17. हस्तस्पर्शादिवान्धेन विषमेऽप्यभिधावता ।
अनुमानप्रधानेन विनिपातो न दुर्लभः । (*Ibid.,* verse 42.)

18. "सत्सु च वेदान्तवाक्येषु जगतो जन्मादिकारणवादिषु तदर्थग्रहणदार्ढ्यायानुमानमपि वेदान्तवाक्याविरोधि प्रमाणं भवत् न निवार्यते, श्रुत्यैव च सहायत्वेन तर्कस्याप्यभ्युपेयत्वात् ।" (जन्माद्यधिकरणभाष्यम्) "इतश्च नागमगम्येऽर्थे केवलेन तर्केण प्रत्यवस्थातव्यम् । यस्मान्निरागमाः पुरुषोत्प्रेक्षामात्रनिबन्धनास्तर्का अप्रतिष्ठिता भवन्ति, उत्प्रेक्षाया निरङ्कुशत्वात्"........"श्रुत्यर्थविप्रतिपत्तौ चार्थाभासनिराकरणेन सम्यगर्थनिर्धारणं तर्केणैव वाक्यवृत्तिनिरूपणरूपेण क्रियते - मनुरपि चैवं मन्यते—

"प्रत्यक्षमनुमान च शास्त्रं च विविधागमम् ।
त्रयं सुविदितं कार्यं धर्मशुद्धिमभीप्सता॥" इति॥
" आर्षं धर्मोपदेशं च वेदशास्त्राविरोधिना ।
यस्तर्केणानुसन्धत्ते स धर्मं वेद नेतरः ॥ इति
च ब्रुवन् । अयमेव च तर्कस्यालङ्कारः यदप्रतिष्ठितत्वं नाम । एवं हि सावद्यतर्कपरित्यागेन निरवद्यस्तर्कः प्रतिपत्तव्यो भवति " ॥

Śaṅkara's *Brahmasūtrabhāṣya,* II. 1. 3(11).

SIDDHITRAYA

By

Yāmunācārya

Edited with English Translation and Notes

By

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न च विशेषमात्रं निर्धूतनिखिलविषयविशेषोपश्लेषं वा वित्तिमात्रमस्ति, येन सहोपलम्भनियमः संवेदितुरभिधीयेत। सामान्यं तु सदपि सौगतैर्न वस्तुतयाऽऽस्थीयते। समस्तवृत्तिप्रत्यस्तमयेऽपि स्वयंज्योतिरयमात्माऽवतिष्ठत इति च वक्ष्यामः।

स्ववाग्विघातश्च; एकं द्वाविति निर्देशात्। द्वयोर्हि एकक्रियानुप्रवेशे सहशब्दः; शिष्येण सहागच्छत्याचार्य इति यथा। अपि च नीलतद्धियोरिति द्वे उपादायाभेद इत्येकत्वविधिः सवित्रीवन्ध्यात्वविधिरिव।

Besides, there is neither an object (viṣaya) apart (from its knowledge) nor pure knowledge divested of any relation to all particular objects; if either existed, then the invariable concomitance of the manifestation of knower with knowledge could be posited.[98] And even if the property common to all knowledge (jñānasāmānya) is existent, it is not considered to be a positive entity by the Buddhists.[99] We shall show that even in the absence of all (knowledge due to mental) modifications, the soul exists as a self-luminous entity. From the assertion that the two (i.e., knowledge and knower) are one, there arises a contradiction in his own (the opponent's) statement; for, the word *saha* (with) is used only when two entities enter on an identical course of action, as in the instance 'with the pupil, the preceptor comes'. Further, after referring to the two (i.e. blue and its awareness) by the expression *nīlataddhiyoḥ* to assert (their) identity by the word *abhedaḥ* (non-difference)[100] is like stating that one's mother is a barren woman.

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98. Having pointed out that the sahopalambhaniyama itself is impossible for the reason that there is the presentation of the 'I' even in the absence of any particular item of knowledge, Yāmunācārya proceeds to establish the defective nature of the illustrative example, which the opponent must cite in his argument, namely, wherever there is invariable apprehension of two things together there must be non-difference between them, as in the case of knowledge and its object. In order to prove that knowledge and its viṣaya are non-different, the object by itself and the knowledge by itself must be taken and shown to be invariably concomitant. But, in truth, neither exists apart from the other. Hence, the illustrative example is subject to the charge of being unproven.

99. The Buddhists cannot hope to escape the difficulty by saying that between viṣayatva (the property of being an object of knowledge) and jñānatva (the property common to all knowledge) there is invariable concomitance, for they do not consider sāmānya (universal) to be a positive entity. Its admission, they say, leads to all sorts of absurdities. The universal is, at best, a working fiction, a useful device in thinking. When certain things are regarded as similar, it is not in virtue of their possessing some common features, but because of their distinction from the rest. The perception of a cow, for example, does not indicate that cowness, as a positive quality, exists in that creature; it only signifies that it is different from all non-cows (*apoha*). See *Six Buddhist Nyāya Tracts*.

100. The reference here is to the Buddhistic dictum—sahopalambhaniyamādabhedo nīlataddhiyoḥ.

अनेकान्तश्च, संविदि प्रतिषिध्यमानैर्जडत्वादिभिः सर्वज्ञज्ञानेन सहोपलम्भनियमभागिभिः संसारिज्ञानैश्च । तेषामभेदाभ्युपगमे ज्ञानस्य जडत्वमूर्तत्वादि, बुद्धस्य बद्धत्वमित्यापद्येत । नियमेन एकज्ञानसिद्धत्वमप्युक्तप्रकारेण प्रत्युक्तम् । विपक्षव्यतिरेकश्चासिद्धः । भवतु नियमेन एकज्ञानसिद्धत्वं ज्ञानज्ञेयज्ञातॄणाम्, मा च भूदभेदः । को विरोधः ?

किमप्रकाशरूपत्वात्प्रकाशमनुरुध्यते ।
व्यवहाराय नीलादिराहोस्वित्तदभेदतः ॥

Besides, in view of the fact that qualities such as non-intelligence and the like are denied to consciousness, and in view of the fact that the knowledge of the soul in bondage is invariably apprehended along with the all-embracing knowledge of the omniscient being (sarvajña) (your hetu) is liable to be charged with *anekānta doṣa*.[101] If, in their case (i.e., between consciousness and its object and between the knowledge of the soul in bondage and that of the sarvajña), non-difference is admitted, the quality of non-intelligence and that of having a form and the like would have to be ascribed to consciousness, and the quality of being a bound soul would have to be attributed to the Buddha. As shown before, even the contention of their (knowledge and knower) being invariably the objects (viṣaya) of one and the same knowledge stands condemned.[102] Besides, here the non-existence of the hetu in cases where the sādhya is known to be absent (vipakṣa) cannot be established; for, there may be the invariable presentation of knowledge, the known and the knower in one and the same knowledge, and still there may not be non-difference between them.[103] What is the inconsistency here ? Do (objects of knowledge, such as) blue and the like depend for their apprehension and consideration on knowledge either because they are not self-luminous or because of their non-difference (from knowledge) ? As, in this manner, it becomes a matter

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101. By drawing attention to the fact that the hetu (sahopalambhaniyama) is present even in cases where the sādhya (non-difference) is not known to exist, Yāmunācārya exposes the fallacy (i.e. *anekānta*) vitiating the argument of the opponent. The latter may try to meet this by admitting that even in those cases the sādhya is really present. In reply to this, Yāmunā says in this next sentence that this admission leads to absurdities.

102. To obviate the contradiction involved in sahopalambhaniyama to which the attention of the opponent was drawn, he shifts his ground and employs a different hetu, namely, *niyamena ekajñānasiddhatvam*.

103. The opponent argues that knowledge and the knower must be identical; for they are invariably apprehended together in one and the same knowledge.

इति सन्दिह्यमानत्वान्नाभेदः शक्यनिर्णयः ।
बोध्यस्थश्चैष नियमो न पुनर्बुद्धिबोद्धृगः ॥

स्पष्टश्च प्रत्यक्षबाधः, सर्वज्ञानेषु वेद्यादिव वित्तेरपि वेदितुर्भेदस्यापरोक्षत्वात् । न च प्रतियोगिनः प्रत्यक्षत्वं दृश्यत्वं वा भेदस्यापरोक्ष्ये त्वपेक्षितव्यम् ; सिद्धिमात्रेण तदुपपत्तावप्रयोजकत्वेन तद्विशेषस्यानाक्षेपात् । अनवभासमानेऽपि प्रतियोगिनि भावाः स्वरूपत एव विलक्षणाः प्रत्यक्ष्यन्त इति सर्वलोकस्वसाक्षिकमेतत् ।

for doubt, it is impossible to determine that there is this non-difference. And this generalisation (that everything depends for its manifestation on consciousness) obtains only in the case of objects known and not in that of knowledge or the knower.

Besides, the conflict (of this theory) with perceptual experience is obvious ; for, in every knowledge, the distinction of the knower from knowledge is directly perceived, even as his distinction from objects of knowledge is apprehended. (At this stage the opponent may object and say that the distinction of knower from knowledge cannot be perceived, since the counter-correlative (i.e., knowledge) is not perceived ; and that even if it is admitted to be perceptible on the strength of the doctrine of svayamprakāśatva, it does not help, since it is not visible. To this we reply) in the matter of the perception of difference there is no necessity for the counter-correlative (*pratiyogi*) to be either perceptible or visible ; for when the direct perception of difference is possible with the aid of the mere thought of the counter-correlative, a particular variety of this knowledge is not required, in as much as it is not responsible (for the perception of difference). (We may go a step further and say that) even when the counter-correlative is not apprehended, things are directly perceived as being distinct in themselves ;[104] and this will be testified to by everybody from his own experience.

Against the possible objection that they may be so apprehended and still may not be identical, he must adduce the indirect proof (*tarka*) that if they were not identical, they could not be apprehended together in the self-same knowledge. It is shown here that he is unable to do so.

104. The apprehension of the generic property (jāti) of a thing, say a pot, is nothing more than the apprehension of the distinction from other things, i.e., non-pots ; and it prevents erroneous identifications. In fact, difference (bheda) is nothing more than generic property (jāti). To grasp the generic property in itself it is unnecessary that the counter-correlative (pratiyogi) should have been perceived. But the generic property, in its aspect of eliminating erroneous identifications, is known as bheda (difference), and is, certainly, found to pre-suppose knowledge of the pratiyogi. See *Śrī Bhāṣya.* Ānanda Press edn. p. 29 ; see also verses 13-14 of *Adravyasara* in *Tattvamuktākalāpa* and *Sarvārthasiddhi* 'yadā punaḥ adhyāsa

ननु जीवतो भेदप्रत्यक्षस्य शिरसि पदनिधानेन सहोपलम्भनियमस्याभेदेन प्रतिबन्धग्रहणमिति कथमिव ततस्तद्बाधसम्भवः। तथा सति हि ज्वालाभेदानुमानमपि तदेकत्वप्रत्यभिज्ञयापोह्येत। अविशेषज्ञो देवानांप्रियः। तत्र हि क्लृप्तकारणदोषानुवृत्तौ सत्यां जायमानोऽपरोक्षावभासः न निरवद्यप्रत्यक्षपूर्वकमनुमानं बाधितुमर्हति। तथाहि—अचिरनिर्वापितारोपितेषु एकवर्तिभागवर्तिषु बहुषु दीपेषु तद्भेदादर्शिनः सुसदृशतया स एवायमिति स्मृतिरुपजायत इति दृष्टम्। अतोऽन्यत्राप्यप्रतिबन्धपुष्कलकारणक्रमोपनिपातादवयवविश्लेषाच्च सुसदृशनिरन्तरप्रवृत्तप्रदीपप्रवाहालम्बनैव तथा मतिरिति निश्चीयते। तथा एकस्मिन्नानात्वप्रत्ययः स्वतःप्राप्तेन्द्रियवृत्तिविपर्ययप्रयुक्तः समसमयोपजायमानानेकान-

(The opponent may ask) since, by trampling on the head of the perception of difference which is alive, (we) notice the universal concomitance between the invariable manifestation (of two things) together and their non-difference, how can the sublation of non-difference be effected by perception of difference? If it could be effected, even the inference regarding the difference of the flames (at successive moments) would be sultified by the recognition of their identity. (The reply is that) the fool (of an opponent) is ignorant of the distinction (between these two cases). Indeed, in the case of the flame, the perceptual knowledge, which arises when there is continuity of the defects in the settled causes (of knowledge) is incapable of sublating the inference which is based upon defectless perception. To make the point clear—it is found that, on account of close similarity between the different flames that are extinguished and lighted immediately after and which exist in the parts of one and the same wick, the remembrance "This is, certainly, that flame which I saw before" occurs to one who has not noticed their difference. Therefore, even in other cases (where the flames are not extinguished and kindled afresh), as there is the occurrence of a series of the complete set of causal factors, which have no counter-acting circumstances, and as there is the separation of parts (of the causal conditions) it is to be concluded that such a knowledge (of identity) has for its object closely similar and incessantly flowing flame-series. Similarly, as the cognition of diversity in regard to one and the same thing is found in the case of seeing the moon double and the like as being occasioned by the swerving from the normal mode

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nivartakatvarūpadharmāntaravaiśiṣṭyena vyavahriyante, tadā bhedā itī ucyante | tena teṣāmeva dharmāṇām vastusvarūpeṇa vyavahriyamāṇānām na pratiyogisāpekṣatvam | adhyāsanivartakatvarūpadharmāntaravaiśiṣṭyena vyavahriyamāṇānām pratiyogisāpekṣatvam iti |'

वद्यप्रत्यक्षप्रतिक्षिप्तविषयश्च द्विचन्द्रादौ दृष्ट इति नासौ तत्रैकत्वानुमानमभिभवितुं प्रभवति । न चैवमिह ज्ञातृज्ञानज्ञेयविवेकसाक्षात्कारी प्रत्यय इति प्रतिरुणद्ध्येवायमिहाभेदानुमानोदयप्रसक्तिम् ।

न चोपलब्धिसाहित्यनियमादेव तथात्वमत्रानुमेयमिति युक्तम् ; विपक्षे बाधकानु-

of the working of the sense-organ,[105] and as having its object contradicted by the simultaneously arising defectless cognitions of many persons, this (perception of diversity) is not capable of setting aside the inference of identity in those cases. But here, the knowledge which immediately apprehends the distinction of the knower, knowledge and the known is not of such a nature ; hence, here it certainly does prevent the very possibility of the birth of the inference of identity.

But, here it is not proper to say that identity is inferable on the mere basis of the invariable manifestation of two things together ;[106] for we know of no obstacle preventing the existence of this hetu (*probans*) in

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105. Either through pressure of the finger upon the eye or on account of some defect in the visual mechanism, the rays of the organ of sight (nāyanaraśmi) split and travel in two directions, thereby creating, for all practical purposes, two mutually independent apparatuses of vision. One apparatus apprehends the moon in her proper place, without, however, apprehending her unity ; the other, which moves somewhat obliquely, apprehends, at first, a place close by the moon, and subsequently the moon herself, without, however, noticing the intervening space separating this place and the moon. These two perceptions—one manifesting the moon in her proper place, and the other in a place close by—arise in such quick succession that the perceiver fails to notice the order of their occurrence, and thereby omits to note their varying natures. Thus, the double apparatus causes two apprehensions ; and as the apprehensions differ, there is also difference in the character of the object apprehended. The mistake here lies in the failure to notice the fact that the duality found in the places is unrelated to the moon. Hence, the perception of two moons. The Prābhākara account, which is closely similar to this, would, however, say that the double apparatus yields a duality of apprehensions, but it fails to grasp that the duality present in the apprehensions is unrelated to the moon. Compare : ' netravṛttiḥ vittigatadvitvam candrañca agṛhītabhedam gṛhṇātīti Prābhākarāḥ | yathā *Saṁvitsiddhau* Prābhākaramatopanyāse " netravṛttir dvidhābhūtā dve tu vṛttī vitanvatī | dvitvam candrañca yugapat nirbhāsayati tatra naḥ " | iti deśagatadvitvam candrañca agṛhītabhedam gṛhṇātīti tatotra vaiṣamyam | ' *Śrutaprakāśikā*. The verse quoted from *Saṁvitsiddhi* is not found in the printed books and manuscripts examined so far.

106. Upalabdhisāhityaniyama and sahopalambhaniyama are identical. The fallacy of anekānta vitiating this hetu was first exposed. Here it is shown that the inability to cite indirect proof applies to this, as it does to the other hetu, namely, niyamena ekajñānasiddhatvam.

पलब्धेः। संविदधीनसिद्धितयापि तथा नियमोपपत्तेः। अनैन्द्रियकत्वेन च तद्वृत्ति-* विपर्ययस्याकिञ्चित्करत्वात्। योग्यानुपलम्भपराकृतत्वाच्च बाधकप्रत्ययस्य।

अपि च विषयसिद्धिर्हि संवित्। सा च स्वयंप्रकाशेत्यविवादः। तेनावर्जनीयस्तथा नियमः। न च भेदोऽपि सिद्धिमन्तरेण सिद्ध्येदित्यनुन्मत्तेन युक्तमापादयितुमित्यलमनेनानुभवपराहतमतातिव्याकुलीकरणेन।

अप्रकाशात्मनश्च नीलादेः प्रकाश इत्यनुभवसिद्धत्वान्न समर्थनान्तरं प्रार्थयते। आत्मा तु प्रकाशस्वभाव एव। न च तावता ज्ञानत्वम्, स्वतन्त्रत्वात्। परतन्त्रमागन्तु यावदर्थेन्द्रियसन्निकर्षादिकारणसन्निधानमवतिष्ठमानमर्थावच्छिन्नरूपं ज्ञानमिति प्रागेवावोचाम। आत्मा तु स्वतन्त्रो ज्ञाताऽहमिति प्रत्यात्मं प्रथते।

cases where the sādhya (that which is to be proved) is absent. It may as well be that this invariable apprehension is due to objects depending for their manifestation on consciousness. Since the reference to the deviation from the normal mode of working of the senses serves no purpose for the reason that (knowledge and knower) are not cognised by the senses, (you cannot point out that the perception of difference, like the perception of two moons, is due to the deviation from the normal mode of working of the senses). As the existence of a sublating cognition is denied by effectual non-perception, (the perception of difference cannot be declared to be false).

Moreover, consciousness is well-known to be the manifestation of objects ;[107] and that it is self-luminous is beyond dispute ; hence, such an invariable manifestation of knowledge and the known is unavoidable. The contention that distinction (of objects from one another) can be established without the aid of consciousness is not likely to be put forward by any one who is not mad. Let this violent shaking of the doctrine which is opposed to experience suffice.

Since the notion that the manifestation of objects, such as, blue and the like, which, in their nature, are not self-luminous, (is effected by consciousness) is vouched for by experience, it requires no other proof. The self, on the contrary, is essentially self-luminous. On this count alone, the self cannot be said to be knowledge, as the former is self-dependent. It has already been stated that knowledge is dependent (on the self), that it is occasional, that it exists only so long as the causes, such as, the contact of the senses with their objects, persist, and that its nature is to pertain to some object or other. The self, on the contrary, is independent, and is the knowing subject ; it shines as the 'I' in every self.

*The Benares edition reads *vitti* ; the variant reading found in the Telugu edition and in some manuscripts has been preferred.

107. See note 104.

यदि पुनरीदृशोऽप्ययमनन्याधीनसिद्धितया ज्ञानमभिलप्यते, अभिलप्यतां कामम् ; तथापि ज्ञानवदेवेदं ज्ञानम् । न ज्ञप्तिमात्रं तथा । अत एव हि छन्दोगाः "अथ यो वेदेदं जिघ्राणीति स आत्मा" इत्याद्यामनन्ति । तथा "कतम आत्मा" इति प्रश्नपूर्वकमिदमेव लक्षणमामनन्ति वाजसनेयिनः "योऽयं विज्ञानमयः प्राणेषु हृद्यन्तर्ज्योतिः पुरुषः" इति । अत्र हि योऽयं सर्वलोकानुभवसिद्धो विविधविषयवेदनप्रचुरः प्राणेषु प्रेरकतया स्थितो हृदयायतने अन्तर्ज्योतिरहमिति प्रत्यक्त्वेन प्रकाशते, स पुरुष इति यथोदितमेवात्मस्वरूपमुपदिश्यते । "एष हि द्रष्टा श्रोता घ्राता रसयिता मन्ता बोद्धा कर्ता विज्ञानात्मा पुरुषः" इत्याथर्वणाः । तथा "विज्ञातारमरे केन विजानीयादिति," "न पश्यो मृत्युं पश्यति न रोगं नोत दुःखताम्" "स उत्तमः पुरुषः" "नोपजनं स्मरन्निदं

Even when it is of this nature, if the self is termed knowledge, on the ground that it does not depend for its manifestation on something other than itself, you are welcome to say so. Even when it is so (described), surely, this knowledge is the possessor of knowledge, and not such a pure consciousness (as is held by you). Indeed, for that very reason, the *Chandogas* (those who chant the Sāma-veda) declare "He who has the awareness of 'let me smell this' he is the self."[108] Similarly, after the question "what is the soul ?" has been raised, *Vājasaneyins* offer the same definition (of the soul, namely "He who is in the midst of the senses and vital breath, who has knowledge for his essence and who is the light inside the heart, he is the person."[109] It is only in the manner indicated already that the true nature of the soul has been here described as follows—"He who is experienced by everybody, who is filled with knowledge concerning diverse objects, who resides among the senses and the breath as their director, who is the inward light in the region of the heart, and who shines for his own sake as the 'I,' is the puruṣa." The followers of Atharvaveda say "Truly, this entity, the seer, hearer, smeller, taster, thinker (māntṛ), knower (boddhṛ), doer (kartā), he who has knowledge for his essence, is the puruṣa."[110] Similarly, the following and other passages are found :—"Lo ! whereby would one understand the understander ?"[111] "The seer sees neither death nor sickness, nor the evil in the world"[112]; "He (the highest light to which the jīva reaches up)

108. *Chānd. Up.* VII.xii.4.
109. *Bṛh. Up.* IV. iii. 7.
110. *Praśna. Up.* IV.
111. *Bṛh. Up.* II. iv. 14.
112. *Chānd. Up.* VII. xxvi. 2.

शरीरम् ," "एवमेवास्य परिद्रष्टुरिमाः षोडश कलाः पुरुषायणाः पुरुषं प्राप्यास्तं गच्छन्ति," "तस्माद्वा एतस्मान्मनोमयादन्योऽन्तर आत्मा विज्ञानमयः" इत्याद्याः ।

सत्यं ज्ञानमित्यत्रापि ब्रह्मलक्षणनिर्देशे ज्ञानशब्दो न ज्ञानमात्रवचनः । अपि तु तद्वद्वचनः ; तद्वचनत्वे "लिति" इति आद्युदात्तत्वप्रसक्तेः । अन्तोदात्तश्चायं ज्ञान शब्दः । मत्वर्थीयाच्प्रत्ययान्तत्वे तथात्वं घटते, नान्यथेत्येतत् परमात्मनिरूपणेऽतिनिपुणमुपपादयिष्यामः । ऐतरेयकोपनिषदपि "प्रज्ञानं ब्रह्म" इत्युक्त्वा "स एतेन प्राज्ञेनात्मना" इति प्रकृष्टज्ञानवन्तमेवेश्वरं दर्शयति । तत्सिद्धं ज्ञातैवायमात्मेति ।

is the Supreme Person," "The jīva experiences him in diverse ways . . . not thinking of the body cast behind in the midst of his kin";[113] "Even so, the sixteen parts (kalās) of the experiencer (jīva), which depend (for their existence, nature and continuance) on the Highest Person, on reaching Him, become incapable of entangling Him in pleasure, pain, etc."; [114] "Different from that made of mind is another inner soul consisting of knowledge."[115]

Even while defining Brahman, in the text—'Brahman is satya, jñāna.......' the word jñāna does not refer to mere knowledge, but to the possessor of it; for, if it referred to the former according to the sūtra-liti[116]—it would follow that the first syllable must have the principal accent. But this word, jñāna has its principal accent on the last syllable. The word jñāna being so accented will be appropriate only if it has, at its termination, the suffix *ac*, which conveys the same meaning as the suffix *matup*. Otherwise, it would not be (appropriate). We shall explain this very clearly while treating of the Supreme self. The Aitareya Upaniṣad also, after describing Brahman in the words 'Prajñāna is Brahman', refers to the lord as the possessor of supreme intelligence, by the expression 'he (Vāmadeva), by means of this Self possessed of intelligence.'[117] Therefore, it is clear that this soul is truly the knower.

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113. *Chānd. Up.* VIII.xii.3.
114. *Praśna. Up.* V.
115. *Tait. Up.* II.4.
116. *Aṣṭādhyāyī.* VI.i.193.
117. *Ait. Up.* Part V.

२५. किं पुनरस्मिन् देहादिव्यतिरेकिणि चेतने प्रत्यगात्मनि प्रमाणम् । अनुमानमिति नयविचक्षणोऽक्षपादः । यदाह "इच्छाद्वेषसुखदुःखज्ञानान्यात्मलिङ्गम्" इति ।

किममीषामात्मना अविनाभावो दृष्टः, धूमध्वजविशेषेणेव धूमविशेषस्य । हन्तैवं तत एव तत्प्रमितेः किमनुमानेन । माभूद्विशेषतोदर्शनं सामान्यतस्तु भविष्यति । तथाहि—इच्छादयः कार्यत्वानित्यत्वगुणत्वादिभिः शब्दादय इवाश्रिततयानुमीयन्ते । यश्चैषामाश्रयः स आत्मा । गुणत्वञ्च परिशेषात् । न सामान्यविशेषसमवायाभावाः, अनित्यत्वात् । न द्रव्यं कर्म वा, व्यापकद्रव्यसमवायादिति । विशेषगुणत्वञ्चानित्यत्वे सत्यस्मदाद्येकेन्द्रियग्राह्यत्वनियमात्, रूपादिवत् ।

THE MEANS OF KNOWLEDGE BY WHICH THE EXISTENCE OF THE JĪVA IS ESTABLISHED

Established through Inference—(*a*) The Nyāya View.

25. What is the means of knowledge (pramāṇa) by which this individual self, which is distinct from the body and the like, and which is intelligent, is established ? Akṣapāda, who is master of the science of logic, thinks that it is inference. What he says is—'Desire, hate, pleasure, pain and knowledge are the reasons pointing to the existence of the soul.'[118] Has invariable concomitance between these and the soul, like that between smoke and fire (dhūmadhvaja), been observed anywhere ? Indeed, if so, as the knowledge of the self is obtained thence itself, what is the need for inference ? (The opponent replies) no invariable concomitance may have been observed in particular (between qualities such as desire, etc., and the soul) ; but, in general (i.e., between qualities and their substrate), it may be noticed. To make the point clear—Desire and other qualities, like sound and so on, are inferred to be dependent upon something, for the reason of their being effects, non-eternal (entities), attributes, and so on. That which is the substrate of these (qualities) is the self. That desire and the like are qualities is inferred by elimination. Being non-eternal, they cannot be either generality (*sāmānya*), or particularity (*viśeṣa*), or inherence (*samavāya*), or non-existence (abhāva). As they are inherent in all-pervasive substances, they cannot be either substance (*dravya*) or action (*karma*). That they are specific qualities (*viśeṣaguṇa*) is established by the fact that at all times, like colour and other qualities, they, while being non-eternal, are grasped by one of our senses.

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118. Icchādveṣaprayatnasukhaduhkhajñānānyātmano liṅgāni. *Nyāya-Sūtra*, I. i. 10,

एवमाश्रयमात्रमुपस्थापयन्तोऽन्वयव्यतिरेकिणो हेतवः द्रव्यान्तरगुणत्वं प्रत्याचक्षाणै केवलव्यतिरेकिसाधनैरात्मगोचरतया नियम्यन्ते । तथाहि भवति—इच्छादयो न महाभूतगुणाः; स्वात्मन एव प्रत्यक्षत्वात्, अबाह्येन्द्रियग्राह्यत्वाद्वा । ये भूतगुणास्ते स्वात्मपरात्मप्रत्यक्षा बाह्यकरणप्रत्यक्षाश्च, यथा रूपादयः; न तथा इच्छादय इति न तद्गुणाः । दिक्कालमनांसि पुनर्न विशेषगुणवन्ति, नापि तद्गुणानां प्रत्यक्षत्वमिति न तेषामपि गुणाः । अकारणगुणपूर्वत्वात् अयावच्छरीरभावित्वादित्यादयः शरीरविशेषगुणत्वप्रतिषेधहेतवः प्राचीनाश्च अत्रानुकृष्टव्याः । तेन इच्छादयो न शरीरगुणाः तद्गुणभावापवादकप्रमाणवत्त्वे सति गुणत्वात्, ये यथोक्तसाध्या न भवन्ति ते यथोक्तसाधना अपि न भवन्ति, यथा रूपादयः । यथोक्तसाधनाः पुनरिच्छादय इति यथोक्तसाध्या एवेति ।

The reasons concomitant in affirmation and negation (*anvaya-vyatirekiṇo hetavaḥ*), which, in this manner, indicate only (the need of) some substrate (for desire, etc.), are narrowed down in their scope in such a way as to refer to the soul by the reasons which are concomitant in negation only (*kevalavyatirekisādhanaiḥ*) and which disprove the view that they are the qualities of substances other than the soul. That this is so is evident from the following :—Desire and the like are not the qualities of the primal elements (mahābhūtas), because they are perceived only by oneself, or because they are not to be grasped by the outer senses. The qualities belonging to the primal elements, as colour and the like, are perceivable by oneself and others and are perceived by the outer senses ; but desire and the like are not so (perceivable) ; hence, they are not the qualities of primal elements. Again, space (dik), time and mind (manas) do not have specific qualities ; and their attributes are not open to perception ; hence, desire and the like are not their qualities. Reasons, such as the following—since they are not dependent on the causal substances ; since they do not exist as long as the body lasts—(reasons) which were cited before, and which refute the view that they are the specific qualities of the body, are to be brought forward and applied here also. Therefore, desire and the like are not the qualities of the body ; for, while there is evidence contradicting the view that they are the qualities of the body, they are qualities. Whatever does not possess the sādhya does not have the aforesaid sādhana either, as in the case of colour. Desires and the like, however, possess the aforesaid hetu, and hence, they possess the sādhya.

विमतिपदास्पदेभ्यः शरीरादिभ्योऽर्थान्तरगुणा इच्छादय इति वा प्रतिज्ञा। यथोक्त एव हेतुः उदाहरणञ्च प्रयोक्तव्यम्। सामान्येन वाऽन्वयः प्रदर्शनीयः। यो यद्गुणभावापवादकप्रमाणवत्त्वे सति गुणः, स ततोऽर्थान्तरस्य गुणः, यथा पृथिव्यादिभ्यः शब्दः, इति आकाशसिद्धिवदात्मसिद्धिरिति।

२६. इदमपि न समीचीनमित्येके। तथाहि—अन्वयव्यतिरेकिहेतुभिर्देहादिसाधारणमाश्रयमात्रमवगमितम्। न च तावताऽऽत्मसिद्धिः। केवलव्यतिरेकी तु साधनदशामेव नासादयति, सपक्षान्वयविरहादसाधारणवत्। न चैवं केवलान्वयिनो विप-

Or, the thesis to be proved (instead of being 'Desire and the like are not the qualities of the body') may be the following—Desires and the like are the qualities of some substance other than the body, which is the point under dispute.[119] The aforesaid hetu and illustrative example may be cited (in the case of this thesis also). Positive concomitance too may be shown in a somewhat general way. That which is a quality, when there is evidence contradicting the view that it is the quality of a given entity, is the attribute of something other than that given entity, just as sound is the quality of something other than earth and the like. In this way, just as ether (ākāśa) is proved (to be the substrate of sound), the self is established (to be the substrate of desire and the like).

Refutation of the Nyāya View

26. Some consider that this (view) is not correct. To elucidate this point:—with the aid of reasons concomitant in affirmation and negation (*anvayavyatirekī*) it was only made known that there is some support (for desire and other qualities), which might be either the body or some other substance. By this reasoning alone, the soul is not established (to be that substrate); whereas, the reason concomitant in negation alone (*kevalavyatirekī*) does not even possess the quality of being a correct reason; for, as in the case of the fallacy called *asādhāraṇa,* there is absence of the probans in instances where the sādhya is surely met with (sapakṣa).[120] The objection that on this admission, even the reason con-

119. The point at dispute is not the existence of the body, but its possessing desires, etc., as attributes.

120. In the argument, 'sound is eternal, because it is sound' the hetu is vitiated by the fallacy of *asādhāraṇa*; for, it is not present in any sapakṣa (i.e., similar examples where the sādhya is present) even as it is not present in the vipakṣa. Similarly, in cases where reasons concomitant in negation alone (*kevalavyatirekī*) are employed, there being no sapakṣa, it is impossible to show the presence of the hetu in sapakṣas. Hence, *kevalavyatirekī* is considered fallacious. It is defective for another reason also. In order to show that wherever the sādhya is absent the

क्षव्यतिरेकदर्शनविकलतया साधारणवदसाधनत्वम् । देशकालादिशङ्कितोपाधिविगमेऽप्यन्वयदर्शनेन साध्यान्वितस्वभावतया परिनिश्चितत्वात् । न च साधनाभावे साध्याभावदर्शनमात्रेण साध्यान्वितस्वभावत्वं शक्यं निश्चेतुम् । अभावस्यानन्तदेशव्यापितया अनवयवेन ग्रहणस्यैव दुष्करत्वात् । कलयाऽप्यन्यत्र वृत्तौ सम्बन्धे नियमासम्भवात् । सन्देहग्रस्तत्वाच्च किं साधनाभावप्रयुक्तः साध्याभावः, किं वा निमित्तान्तरप्रयुक्त इति । पृथिव्यादिभ्योऽर्थान्तरगुणत्वप्रतिज्ञापि द्रव्यान्तराप्रसिद्धेरप्रसिद्धविशेषणा ।

comitant in affirmation alone cannot be considered a correct reason, for, as in the fallacy known as *sādhāraṇa,* there is the failure to show the absence of the reason in the counter-example (vipakṣa)[121]—(this objection) does not stand. Since, even in the absence of suspected limiting conditions (upādhis), such as space, time and the like, the co-presence (of the hetu and the sādhya) is found, it is definitely ascertained that the hetu has the character of being connected with the sādhya. From the mere observation of the absence of the sādhya when there is the absence of the hetu, it is not possible to ascertain that the hetu has the character of being connected with the sādhya. As the non-existence of the sādhya is met with in innumerable places, it is impossible even to take note of them all exhaustively. If even in a single place the hetu were to be present in some manner, the universality of the connection cannot be maintained. Besides, it is a matter for doubt whether the non-existence of the sādhya is due to the absence of the hetu or to some other cause. Even the thesis (that desire and the like) are the qualities of some entity other than earth and the like may be charged with having an unproven attribute (*aprasiddha-viśeṣaṇa*), for that other entity has not been proved.

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hetu is also absent, the sādhya must first have been understood previously; but it is not met with anywhere. Hence, the Vedāntins dismiss *kevalavyatirekī* as being faulty. Cf. 'sādhyābhāvo vipakṣe kathamiva viditaḥ tasya sādhyāprasiddheḥ.' *Tattvamuktākalāpa, Buddhisara,* verse 53. See also *Nyāya-Pariśuddhi* (Memorial edition, pp. 66-75) and *Dīdhiti.* The *Vedānta Paribhāṣā* rejects *kevalānvayī* also, on the score that the *kevalānvayī* requires a sādhya which is present everywhere, and such a sādhya is inadmissible on the theory that Brahman is nirguṇa.

121. The opponent says—In the argument 'the mountain has fire, because it is knowable,' the hetu is defective (*sādhāraṇa*), because it is not absent in the vipakṣa. Similarly, in arguments employing reasons concomitant in affirmation alone (*kevalānvayī*), there being no vipakṣa, the absence of the hetu in the vipakṣa cannot be cited. Hence, *kevalānvayī* also is a defective process of reasoning.

२७. एतेन साङ्ख्योदीरितसाधनभेदा अपि अपोदिता वेदितव्याः सङ्घातपरार्थत्वादयः। तथा च तानेव तावदादितो व्याकुर्महे।

"सङ्घातपरार्थत्वात् त्रिगुणादिविपर्ययादधिष्ठानात्।
पुरुषोऽस्ति भोक्तृभावात्कैवल्यार्थं प्रवृत्तेश्च॥"

अयमर्थः—देहेन्द्रियादयः परार्थाः सङ्घातत्वात्, शयनासनशरणादिवत्। प्रत्यक्षञ्च शरीरस्य सङ्घातत्वं भूतानाञ्च। अव्यक्तमहदहङ्कारेन्द्रियाणाञ्च सुखदुःखमोहात्मतया तथात्वमनुमेयं तद्वदेव।

न चेन्द्रियाणामाहङ्कारिकत्वस्याभ्युपेतस्य साध्यत्वाभिमतपारार्थ्यधर्मस्य चासंहतपरार्थत्वस्यान्यथात्वापादनादुभयविशेषविरुद्धत्वं हेतोः। अहङ्कारान्वयव्यतिरेकानुविधानेन

(b) The Sāṅkhya View

27. By the same reasoning, even the various reasons (such as, that collocations exist for the sake of others) are to be understood as having been set aside. Let us analyse them in the order of their presentation. "Since collocations exist for the sake of something other than themselves, since (in this other) there is the absence of the three guṇas and the like, since there must be control (of these collocations), since there must be an experiencer, and since there is activity for securing aloofness (from prakṛti), the soul exists."[122] This means—Being collocations, the body, the senses and so on, like a bed, a seat, a house, etc., exist for the sake of something other than themselves. The character of being a collocation attributed to the body and the primal elements is vouched for by perception. That the same character (of being a collocation) belongs to unmanifest prakṛti (avyakta), mahat, ahamkāra and the senses, as to the body and elements, is to be inferred from the fact that the former are of the nature of pleasure, misery and delusion.

(A possible objection is that) when the senses are admitted to be derived from the ahaṁkāra and when the meaning of what is accepted as the sādhya, namely, the quality of existing for the sake of another is the quality of existing for the sake of another which is itself not a collocation, the respective reasons for the above only prove the opposite, and hence, they are subject to the fallacy of *ubhaya-viśeṣaviruddha*.[123] (The Sāṅkhya replies) this objection can-

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122. *Sāṅkhya-Kārikā*. verse 17.

123. It is interesting to note that this identical argument has been cited as an example of *ubhayaviśeṣaviruddha* (*i.e.* Dharmadharmyubhaya, viśeṣaviruddha), by Kumārila Bhaṭṭa in his *Śloka-Vārttika*, Anumānapariccheda. sl. 105-7. The six varieties of *viruddha*—Dharmasvarūpabādha, Dharmaviśeṣabādha, Dharmisvarupabādha, Dharmiviśeṣabādha, Dharmadharmyubhayasvarūpabādha and Dharmadharmyu-

"देवा वैकारिकाः स्मृताः" इत्याद्यागमबलेन प्रकाशलाघवगुणान्वयेन च वैकारिकाभिधानसात्त्विकाहङ्कारभेदयोनित्वस्येन्द्रियाणां प्रमाणसिद्धस्यापवादानुपपत्तेः। आत्मनस्तु सङ्घातत्वे तस्यापि सङ्घातान्तरार्थतयाऽनवस्थापत्त्या निष्प्रमाणकानेककल्पनाप्रसङ्गात्। अप्रयोजकत्वाच्च सङ्घातत्वस्य शेषित्वे। दृष्टान्तदृष्टाशेषधर्मोपस्थापनेऽनुमानप्रामाण्यस्यैवासम्भवापत्तेः, तदसङ्घातत्वस्य चाप्रचाल्यत्वात्। न च प्रमाणान्तरबलेनाऽनाहङ्कारिकत्वसङ्घातान्तरार्थत्वयोर्बाधेऽबाधितेन सङ्घातपरार्थत्वेनापि न भवितव्यम्। एवञ्च संहतत्वव्यापकावरुद्धत्रैगुण्यादिरहितोऽसंहत आत्मा सिद्धः

not be raised. Since the presence or the absence of the senses is dependent respectively upon the presence or the absence of ahamkāra, since there is the support of scriptural passages, such as, "The senses are considered to proceed from ahamkāra," [124] since there is contact of qualities, viz., brightness and lightness[125] (with the senses), the fact that the senses have for their source that variety of ahamkāra wherein the sattva quality predominates and which is known as *vaikārika* is well supported by evidence; hence, it would be improper to deny this fact. Even so, the belief that the self is not a collocation is unshakable, for the reason that (1) if the soul were itself a collocation as it would have to exist for the sake of another collocation, there would result an unending series, and, as a consequence, many things for which evidence is lacking would have to be assumed; (2) the quality of being a collocation is not responsible for an entity being a śeṣi (i.e. one for whose sake others exist); and (3) inference itself would lose its validity, if all the qualities found in the illustrative examples are taken into consideration.[126] When the refutation of the statements—that the senses do not proceed from ahamkāra; and that the body, senses and the like exist for the sake of other collocations—is effected on the strength of some evidence, it will not necessarily follow that even the facts of their being a collocation and of their existing for the sake of others, which are uncontradicted, should stand condemned. Thus, it is evident that the soul, which is itself not a collocation, is free from the three guṇas (sattva, rajas and tamas) which are associated with the quality of existing for the sake of another—a quality which never fails to be present whenever the character of being a collocation exists.

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bhayaviśeṣabādha—have, in later times, been reduced to one, since all of them, in the last resort, only prove the opposite of what is intended to be proved.

124. *Viṣnu Purāṇa.* I.ii.47.

125. Sattvam laghu prakāśakamiṣṭam. *Sāṅkhya-Kārikā.* verse 13.

126. Cf. yadi vivakṣitārthavyatirekeṇa anumānasya avivakṣitamapi viṣayaḥ, nanvetasyām kalpanāyām sarvānumānam vyāhanyeta. *Nyāya-Vārtika* (Chowkamba edn. pp. 344-45). See also *Nyāyavārtikatātparyaṭīkā* (Benares edn. p. 600).

तथा देहादयः सुखदुःखमोहात्मकतया परेणाधिष्ठीयन्ते, यन्त्रादिभिरिव रथादयः। अपिचानुकूलप्रतिकूलवेदनीये सुखदुःखे भृत्यभ्रातृव्यवदनुकूलनीयप्रतिकूलनीयवती। दृश्यत्वाद्देहादयो घटादय इव विलक्षणद्रष्टृका इति अधिष्ठातुरनुकूलप्रतिकूलवेदकस्य द्रष्टुस्त्रैगुण्यादिविपर्ययः पूर्ववदेव निर्णेतव्यः।

तथा देहादेरव्यक्तान्तस्य कृत्स्नस्य त्रिगुणात्मकतयाऽत्यन्तदुःखोपशमनलक्षणमोक्षदशानुपपत्तेः, तदर्थञ्च शास्त्राणां महाधियाञ्च प्रवृत्तेरस्ति देहादिव्यतिरिक्तोऽसंहतस्त्रैगुण्याद्यसंस्पृष्टः पुरुष इति।

२८. अत्रापि सङ्घातपारार्थ्यादिभिर्यद्यपि परः कोऽप्यधिष्ठाता द्रष्टा सिद्धः, तथापि

Being of the nature of pleasure, pain and misery, the body and the like are controlled by some other entity, even as the chariot and other objects by the charioteer and the like. Further, pleasure and pain, which are respectively known as agreeable and disagreeable experiences, point to a person who is pleased or displeased, even as the servant and the foe (imply a person who is ministered unto or one who is hated). Since the body, etc., are perceptible, like pots and similar objects, they must have a perceiver[127] distinct from themselves. As shown before, the absence of the three guṇas from the soul, who is (thus known to be) a controller, a knower of agreeable and disagreeable things and a perceiver, is definitely ascertainable.

Similarly, as all things commencing from the body and ending with unmanifest matter (avyakta) are of the nature of the three guṇas, the state of release, which is essentially the annihilation of all miseries, is impossible of attainment by them; but, since the śāstras and wise men endeavour to attain (release), there must be a soul (puruṣa) that is distinct from the body, that is not a collocation, and that is untouched by the three guṇas.

Refutation of the Sāṅkhya View

28. Even here, although with the aid of reasons, such as that collocations exist for the sake of others, the existence of some other entity (than the body), who is a controller and perceiver is established,

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127. In interpreting bhoktṛbhāvāt, some have understood 'bhoktā' as enjoyer, and some, as perceiver. Both the interpretations have been mentioned here. See *Sāṅkhya-tattva-kaumudī*, Kārikā, 17.

न तस्यासंहतत्वात्त्रिगुणत्वादिरभिमतविशेषः शक्यनिश्चयः । तथाहि—सङ्घातस्य सङ्घातान्तरार्थत्वनियमदर्शनबलादापतन्ती परा परा सङ्घातकल्पना न दोषाय कार्यतयेवानादिकारणपरम्पराकल्पना ।

न चाप्रयोजकत्वमपि। असङ्घातस्यासङ्गस्याशेषविक्रियाशून्यस्याऽनाधेयातिशयकूटस्थचितिमात्रवपुषः पुरुषस्य सङ्घातं प्रति परत्वानुपपत्तेः। तद्धि तस्य शेषीभवति, तच्च तदर्थम् , यद्येनोपक्रियते क्रियते वा, यच्चोपकरोति करोति वा। न च तथा साङ्ख्यपुरुष इति कथं तस्य सङ्घातं प्रति परत्वं कथन्तरां च सङ्घातस्य तादर्थ्यम् । अनुपकार्योऽप्युपकार्यतया आत्मानं मन्यत इति चेत् ; कामं मन्यतां किमायातमुपकार्यत्वस्य । न खलु बालास्तलमलिनतादिमत्तया गगनमभिमन्यन्त इति तस्य तथात्वं भवति ।

yet, (with their aid) the qualities of not being a collocation and of not possessing the three guṇas, which are admitted by you, cannot be determined as belonging to it. To explain—The positing of a series of collocations, made on the strength of the observation that a collocation, always exists only for another collocation, like the positing of a series of causes having no beginning, made for the reason that something is an effect, is not wrong.

It cannot be said that (the quality of being a collocation) is not responsible (for anything being a śeṣi, an independent being for whose sake others exist) ; for, in respect of any collocation, the soul, which is not a collocation, which is unattached, which is bereft of all modifications and which is mere consciousness itself, which is unchanging and for which no service is rendered by anything else, cannot be that other for whose sake the collocation exists. That which is served or produced by another becomes the śeṣi in respect of that other. That which serves or produces anything exists for the sake of the latter.[128] But, since the puruṣa admitted by the Sānkhyas is not so (served or produced by a collocation), how can he be regarded as being that other in respect of the collocation ? What is more, how can the collocation be treated as existing for his sake ? If it be said that though the puruṣa is not really rendered any service, he imagines himself as being served, (we reply) by all means let him imagine like that ; how does it help to establish that he is being served ? For the reason that children imagine ether to possess the dirt found in a region, the character of being dirty will not belong to it.

128. Cf. *Jaimini-Sūtra*. III. i. 1.—śeṣaḥ parārthatvāt.

अपि च तथाविधभ्रमोऽपि कस्य कथमुदयत इति विवेचनीयम् । न तावच्चिच्छक्तेः, सर्वविक्रियाशून्यतया अतिविशुद्धायामशुभशतनिदानभूतभ्रमपरिणामासम्भवात् । अन्तःकरणं तु बुद्धयपरपरिभाषाभिधानमचेतनतया तनुरिव न भ्राम्यति ।

अचिदपि स्वच्छतया चिच्छायामापन्नं चेतनायत इति चेन्न ; नीरूपायाश्चितेर्बुद्धेश्च छायातद्ग्रहणानुपपत्तेः । छायेव छायेति चेत् ; कः खल्विवार्थः ? चितिसरूपत्वमिति चेत् ; हन्तैवमशेषविकाररहितचितिसरूपतापत्तावन्तःकरणमपि प्रत्यस्तमितसमस्तवृत्तिकमापद्यत इति दुरुपपादतरोऽयं भ्रमसुखदुःखादिविकारयोगः प्रत्यात्मसिद्धः ।

चेतनत्वेन सरूपत्वमिति चेन्न; चितिरेव हि ते पुरुषः, न चेतयिता । यथाह तत्र भगवान् पतञ्जलिः " यदा चितिरेव पुरुषः किमत्र केन व्यपदिश्यते " इति ।

Further, to whom such an illusion occurs and how must be investigated. It cannot occur to the power of consciousness; for, the illusion, which is a mode of change and which is the root cause of a hundred ills, cannot arise in the exceedingly pure consciousness, as it is devoid of all modifications. The internal organ (antaḥkaraṇa) too, for which buddhi is another technical expression, cannot experience the illusion; for, like the body, it is non-intelligent.

If it be urged that, though it is non-intelligent, the internal organ, being transparent, receives the reflection of consciousness and becomes a conscious subject, as it were, (we reply) not so; for, reflection and its reception cannot properly belong (respectively) to consciousness and buddhi, which are alike formless. If it be contended that to be a reflection is to be like it, (we ask) what is meant by 'being like' (consciousness)? If the reply is that it consists in having a nature similar to that of consciousness, (we rejoin) if, indeed, that were so, when buddhi attains similarity with consciousness, which is free from all modifications, it too becomes devoid of all modifications; and hence, it would be impossible to account for the contact of modifications, such as, illusion, pleasure and pain, which are met with in every soul.

If it be said that buddhi has a nature similar to that of consciousness only in so far as it possesses consciousness, (we reply) not so; for, on your view, the soul is, in fact, consciousness itself and not a conscious entity; the venerable Patañjali, for instance, says, 'If consciousness alone is the soul, what is it that is referred to here, and by what.'

अजडायमानत्वमिवार्थ इति चेत्; अजडत्वमपि न ज्ञातृत्वातिरिक्तं किञ्चिदित्युक्तमेव, तेनैव तद्विवरणमिति च न किञ्चिदेतत् ।

अपि च चितिसन्निधानाधीनां बुद्धिसिद्धिमभिदधानः कथमिव तदजडिमानं प्रतिजानीयात् । न च चितिस्वान्तयोः बिम्बप्रतिबिम्बाधाराभिमतयोरन्यतरस्मिन्नप्यविद्यमानस्य विषयविशेषोपरक्तज्ञातृत्वलक्षणधर्मभेदस्य प्रतिबिम्बे सम्भवः । प्रत्युक्तश्चायं प्रतिबिम्बवादः प्रच्छन्नबाह्यमतप्रत्यादेशे ।

यदुच्यते निर्विकारायापि पुंसे तत्सन्निधिमहिमसमुत्थापितप्रमाणविपर्ययादिविचित्रवृत्तिभेदं स्वान्तमेव स्ववृत्तिं विषयविशेषांश्चोपदर्शयति, सामन्तचक्रमिव पराक्रमीयः* प्रति-

If it be urged that 'being like' (consciousness) means 'being like not-non-intelligent', (we reply that) it has already been shown that not being not-intelligent is nothing more than the quality of being a knower and that the explanation of 'being like' (a conscious entity) is sought to be made in terms of itself;[129] and hence, this (interpretation of 'being like') is pointless.

Further, how (we ask) can he who maintains that the existence of buddhi is dependent upon the nearness of consciousness posit its being not-non-intelligent? And, when this particular quality, known as the character of being a knower—a quality associated with some object or other—does not exist in either consciousness or buddhi, which are considered to be the original and the basis of reflection, it cannot occur in the reflection. This reflection theory has already been refuted while discarding the view of the heretics in disguise.

It may be said that, though the puruṣa (self) is changeless, the antaḥkaraṇa itself, which possesses wonderful and diverse activities, such as *pramāṇa* and *viparyaya*[130] produced by the power belonging to the nearness of the puruṣa, exhibits its activities and different objects to the puruṣa; and thereby, he comes to be called witness (sākṣī), enjoyer

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129. "Being like a reflection of consciousness, it becomes a conscious entity as it were" was the reply to the question "How can the antaḥkaraṇa, which is non-intelligent, be a conscious entity and experience illusions?" "Being like a reflection of consciousness,' when explained, finally amounts to 'being like a conscious entity.' Thus, the answer reduces itself to the tautalogous proposition "Being like a conscious entity, it becomes a conscious entity, as it were.'

130. *Pramāṇa, viparyaya, vikalpa, nidrā* and *smṛti* are the five vṛttis of the antaḥkaraṇa. For an account of these see *Yoga-Sūtras* I.5-11.

* The word *parākramīyaḥ* has been formed in accordance with Pāṇini's sūtra 'vinmatorluk' (V. iii. 65). Compare the stems srajīyas, tvacīyas. Atiśayena parākramavat parākramīyaḥ (one possessing extremely great valour).

All printed books and manuscripts read pratibalavilolanādivṛttī; but pratibalavilolanādivṛttīm is obviously a better reading.

बलविलोलनादिवृत्तिं स्वामिने; ततस्साक्षी भोक्ता चापदिश्यते राजेति विक्रमी विजयी चेति।

तदनुपपन्नम्। द्रष्ट्रे हि दर्शनीयं दृश्यते। न च दृशिमात्रात्मवादिनां साङ्ख्यानां तदुपजीविनाञ्च प्रच्छन्नानां द्रष्टृत्वं वास्तवमस्ति। न च काल्पनिकेन शेषित्वसम्भवः। कल्पनापि न सम्भवतीत्युक्तमेव। राजा तु सामान्यतो विशेषतो वा तेषु कर्मस्वमात्यान्नियुञ्जानस्तत्फलमैश्वर्यादि चाश्नुवानः स्वस्वामिभावहेतुक्रयप्रतिग्रहजननादिव्यापारयोगी न निष्क्रियस्यानाधेयातिशयस्य पुंसो निदर्शनमिति यत्किञ्चिदेतत्।

स्थूलोऽहं गच्छाम्यहमित्यादि प्रत्यक्षमृदितविषयतया प्रसिद्धैवातीतकालता व्यतिरेकानुमानभेदानामित्यानुमानिकीमप्यात्मसिद्धिमश्रद्दधानाः श्रौतीमेव तां श्रोत्रियाः सङ्गि-

(bhoktā); just as the gathering of generals possessing extremely great valour exhibits to the master its activities, such as entering the enemy's camp and causing consternation therein, and, as a consequence, he comes to be termed a monarch, a man of valour and a conqueror.

But, this view is unsound. In fact, it is only for the sake of the seer that the visible object is found to exist; and for the Sānkhyas or for their followers, the heretics in disguise, who alike maintain that consciousness alone is the soul, the quality of being the seer is not real. And, the quality of being a śeṣi (one for whose sake others exist) cannot be brought about by the fictitiously imagined quality of being the seer. Besides, it has already been said that even this fictitious imagination cannot arise. (As for the analogy), the king, who commands his generals, in a general or in a specific manner, in those activities, and who acquires the fruits resulting therefrom, such as, sovereignty, and who engages in activities such as purchasing, receiving and inheriting,[131] which are responsible for the relation of being owner and property, is not an analogue to the soul, which is inactive, and which is rendered no service by anybody; hence this view is valueless.

The different arguments seeking to prove that the soul is distinct from the body and the like are well known to be stultified (*atītakālatā*),[132] in as much as their subject-matter is shattered by perceptual knowledge, such as, 'I am stout,' 'I go,'; for this reason, those well-versed in the vedas, having no faith even in the view that the proof of the soul is afforded by inference, assert that this proof is furnished by the vedas

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131. Perhaps, in preference to birth (janana) mention may be made of conquest (jaya), since, in the case of kṣatriyas, conquest is regarded as a special title to ownership. cf. svāmī rikthakrayasamvibhāga parigrahādhigameṣu | brāhmaṇasya adhikam labdham | kṣatriyasya vijitam | nirviṣṭam vaiśyasūdrayoḥ. *Gautama Dharma-Sūtra.* X. 38-41.

132. The fallacy of *atītakālatā* or *kālātyayāpadeśa* has, in later Nyāya terminology, come to be called *bādha*.

न्ते—श्रुतयो हि साक्षादेवात्मनः शरीरादिव्यतिरेकमादर्शयन्ति—"स एष नेति नेति" "अकायमव्रणमस्नाविरं शुद्धमपापविद्धम्" "योनिमन्ये प्रपद्यन्ते शरीरत्वाय देहिनः स्थाणुमन्ये" "न जायते म्रियते वा कदाचित्" "जीवापेतं वाव किलेदं म्रियते" "न ह वै सशरीरस्य सतः प्रियाप्रिययोरपहतिरस्ति" "अशरीरं वाव सन्तं न प्रियाप्रिये स्पृशतः" इत्याद्याः। कालान्तरभाविस्वर्गादिसाधनविधयश्चाक्षिपन्ति देहादिव्यतिरिक्तं नित्य चेतनमिति श्रुतितदनुपपत्तिप्रमाणकोऽयं प्रत्यगात्मेति।

२९. ननु हिताहितप्राप्तिपरिहारमात्रपरस्याम्नायस्य शिरसि किमिति महानयं भारः प्रक्षिप्यते। अनुमानागमाद्यशेषप्रमाणमूलभूतेन प्रत्यक्षेणैव ह्येनं प्रतिपद्यामहे। ममेदं शरीरं इदमहं जानामीति घटादिदृश्येभ्य इवायं द्रष्टा देहादपि पृथग्भूतः प्रत्यक्षम् परिस्फुरति।

alone. In fact, scriptural passages, such as the following, directly reveal the distinctness of the soul from the body and the like. "The soul (ātman) is not this; it is not that."[133] "The bodiless, the scatheless, the sinewless, the pure (śuddha), unpierced by sins (apāpaviddha)";[134] "Some go into a womb for assuming bodily form; others become immovable objects";[135] "He is never born, nor does he die"; "Indeed, only this (body) which is devoid of life dies"[136]; "Verily, there is no freedom from pleasure and pain so long as he is embodied; when he is bodiless, pleasure and pain do not touch him."[137] Even the injunctions prescribing means for realising heavenly bliss and the like, which are to accrue after bodily death, lead to the positing of an eternal, conscious entity, that is distinct from the body, and so on; hence, the individual soul has for its means of proof the scripture and the presumptive testimony connected therewith (*śrutārthāpatti*).

The Existence of the Jīva deduced from Perception by External Senses

29. (One may ask) why should this heavy load be placed on the head of the vedas, whose sole aim is to teach the means for realising the good and avoiding the evil? Indeed, we know the soul with the aid of the testimony of perception itself, which is the basis of all pramāṇas, such as, inference and scripture. From cognitions such as, 'This is my body,' 'I know this,' it is evident that this seer shines forth in direct perception as being distinct from the body also, just as he is distinct from objects known, such as, the pot.

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133. *Bṛh. Up.*
134. *Īśa. Up.* 8.
135. *Kaṭha. Up.* V. 7.
136. *Chānd. Up.* VI.xi.3.
137. *Chānd. Up.* VIII.xii.1.

३०. मैवं वोचः। इन्द्रियार्थसन्निकर्षजं हि विज्ञानं प्रत्यक्षम्, न चेन्द्रियाणि रूपादि-व्यतिरेकिणि निरतिशयसूक्ष्मे प्रतीचि परागर्थ इव सन्निकर्षेण ज्ञानं जनयितुमर्हन्ति। यथाम्नायते "पराञ्चि खानि व्यतृणत्स्वयंभूः" इति।

अचित्त्वप्रतिबद्धश्च सर्वोऽपीन्द्रियगोचरः।
तेन नैन्द्रियकं ज्ञानमात्मानं स्प्रष्टुमर्हति॥

३२. स्यान्मतं भौतिकत्वाद्बहिरिन्द्रियाणि मा नामात्मनि प्रवर्तिषत; मनस्तु प्रवर्तिष्यते, अभौतिकत्वादिति। तन्न। तस्यापीन्द्रियत्वे भौतिकत्वस्यापरिहार्यत्वात् यथाम्नायते—"अन्नमयं हि सोम्य मन" इति। प्रपञ्चितश्चैतन्निरूपणे।

अथोच्येत, अस्ति तावदहमित्यपरोक्षावभासः प्रत्ययः। न चैन्द्रियकत्वमन्तरेणासौ सम्भवति। क्लृप्तं च बहिरिन्द्रियागोचरेऽपि सुखादौ स्वान्तस्वातन्त्र्यमिति तन्निमित्त

Refutation of this View

30. (We reply) do not say so; for, that is perceptual knowledge which arises from the contact of the senses with objects;[138] and from their contact with the inward soul, which is devoid of colour and other qualities, and which is exceedingly subtle, unlike their contact with outward objects, the senses are incapable of originating knowledge (concerning the soul). It has been so declared in the vedas: "The self-existent (svayambhūḥ) made the senses proceed outward (and thus troubled them)."[139] All objects revealed by the senses will invariably be accompanied by the quality of non-intelligence; therefore the knowledge born of the senses is incapable of touching the soul.

The Existence of the Soul established through Perception by Manas

31. It may be said, "Let the external senses not come into contact with the soul and present it, since they are elemental (bhautika); but the manas, being non-elemental, may enter into contact with the soul and present it." (Against this, we reply) it is not so; for, if that too be a sense-organ, it must inevitably be elemental. It has been so declared in the vedas: 'Gentle sir; the manas is, indeed, made of food (anna)"[140]; when dealing with this (manas) it has been fully explained.

It may be urged: "Certainly, there is a cognition of 'I'—a cognition which is direct awareness. And this (cognition) cannot but be what has arisen from the senses. The claim of manas in regard to (the manifestation of) pleasure and the like, even though they do not fall within the

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138. indriyārthasannikarṣotpannam jñānam . . . pratyakṣam. *Nyāya-Sūtras*, I. i. 4.
139. *Kaṭha. Up.* IV.1.
140. *Chānd. Up.* VI.v.4.

एवमयमहंप्रत्ययो युक्तः । प्रयोगश्च भवति, आत्मा मानसप्रत्यक्षग्राह्यः, बहिरिन्द्रियायोग्यत्वे सति प्रत्यक्षत्वात् सुखादिवदिति ।

३२. तन्न । संवेदनेन व्यभिचारात् । न च तदप्रत्यक्षम्; जानामीत्यनन्योपाधिकतया प्रतिभानात् । अप्रत्यक्षत्वे च संवेदनस्यासिद्धिरेव स्यादित्युक्तमेव ।

न च तदपि मानसप्रत्यक्षतया सपक्षे निक्षेपमर्हति; विमर्दासहत्वात् । यदा खलु कुतश्चिदात्ममनस्संयोगाद्विषयसंविदुदयमासादयति, तदैव किं तत एव तद्गोचरमपि वेदनं जन्यते, उतान्यदान्येनेतिवाच्यम् । न च युगपदुभयजननं सम्भाव्यते; तथाहि सति परापरतत्तद्गोचरनिरवधिकधीनिकुरुम्बजन्म तत्कालमेवापद्येत । न च तदस्ति । युगप-

scope of the external senses, is well established. Hence, it is but proper that the cognition of 'I' should have this (manas) for its cause. This can be expressed syllogistically. The soul, like pleasure and so on, is to be grasped by mental perception; for, while it is not capable of being grasped by the external senses, it is still an object of perception.

Refutation of this View

32. (Our reply is) it is not so; for, from the case of (samvedana) jñāna, (where the sādhya is absent while the hetu is present), it is found that this argument commits the fallacy of *vyabhicāra*. (To escape this fallacy), you cannot point out that jñāna is not open to perception; for, without depending on anything else, it manifests itself as 'I know;' and it has already been stated that if it were not an object of perception, it would, in fact, cease to be knowledge.

It cannot be contended that, since it is an object of mental perception, jñāna too is fit to rank among similar examples (sapakṣa); for this contention will not stand scrutiny. (If that is your view), you must point out whether even the knowledge concerning the knowledge of an object is produced exactly at the time when, by virtue of a certain conjunction between soul and manas, the knowledge of an object takes birth, and whether (it is produced) by the selfsame contact, or whether it is produced at a different time and by a different contact. (Regarding the first alternative), the origination of the two (i.e. knowledge of an object and knowledge concerning the knowledge of an object) at the same time is impossible. If that were so, the birth of a collection of limitless items of knowledge, each of which has the other for its respective object, would have to take place at the same time. But, it does not take place. If it

दुत्पत्तौ विषयविषयित्वनियमश्च निर्निबन्धनः । असमसमयजन्मना ज्ञानेन वेद्यत्वे न प्रत्यक्षत्वम्, क्षणिकत्वेनाऽग्रिमज्ञानस्याऽऽग्राहकज्ञानोदयमवस्थानाभावात् । भावे च सर्वज्ञानानां सर्वदावस्थानप्रसङ्गात् । कार्यविरोधित्वे चानन्तरमेव संस्कारोदयान्न कालान्तरे स्थितिरितिसंविदो न मानसप्रत्यक्षवेद्यत्वम् । न चाप्रत्यक्षा संविदिति स्फुटो व्यभिचारः ।

ऐन्द्रियकत्वस्यानात्मत्वप्रतिबद्धत्वाद्विरुद्धता च । साध्यविकलश्च दृष्टान्तः; सुखदुःखयोः प्रत्यक्षत्वानभ्युपगमात् । अनभ्युपगमश्च इन्द्रियपौष्कल्यनाशयोरेव सुखदुःखत्वात् । न हि तस्मिन्नप्रत्यक्षे तत्पौष्कल्यं वैकल्यं वा प्रत्यक्षं भवति । इन्द्रियस्वरूप इव अभ्यासपाटवात्तयोरपरोक्षत्वाभिमानः, मनोऽवस्थाभेदेष्विव चानुमेयमनोवादिनाम् ।

takes place simultaneously, the distinction made between being an object of knowledge and owning the object (viṣayaviṣayitvaniyamaḥ) would become baseless. (Regarding the second alternative), if it (knowledge concerning knowledge) is made known by a knowledge arising at a different time, it would cease to be an object of perception; for, as knowledge is momentary, the earlier knowledge will not last till the rise of the knowledge which reveals it. If it lasts, all cognitions would have to exist at all times. If it be urged that it is incompatible with its effect (i.e. if it perishes as soon as its effect springs up), (we reply that) as its effect, namely, the mental impression arises immediately after, it will not exist at a different time (i.e. at a time when the revealing consciousness arises). Hence, jñāna cannot be an object of mental perception. And it cannot be said that it is obvious that the argument commits the fallacy of *vyabhicāra*. Besides, as the quality of being grasped by the senses is invariably concomitant with the quality of being non-soul, your argument commits the fallacy of *viruddha* also (i.e. is guilty of employing adverse probans). Further, the illustrative example cited in the argument is defective in not possessing the sādhya; for, pleasure and pain are not admitted to be objects of perception. And it is not so admitted, because pleasure and pain are nothing more than the flourishing or the decaying state of the senses. Indeed, when the senses are not perceptible, their flourishing or decaying state will not be the object of perception.

In the case of pleasure and pain, as in that of the senses, or again, in that of the different states of mind (manas) on the view of those who maintain that manas is inferable, the false impression that they are directly perceived is due to the power of long continued experience.[141]

141. With continued practice one infers the existence of pleasure, pain, the states of mind and the like so effortlessly and quickly and without noticing the

यस्तु सुगतमतावलम्बी विज्ञानाभिन्नहेतुजतया तयोरपि तदन्तर्भावमभिमन्यते कणभक्षपक्षाश्रयणेन वा तयोरात्मविशेषगुणत्वं ताभ्यां सुखदुःखाधिकरणं व्याचक्षीत, स्वतस्सुखीत्येतद्विमर्शं वात्रत्यम् ।

The section dealing with pleasure and pain (*sukhaduḥkhādhikaraṇa*)[142] or the discussion of the description of the soul (vide p. 8) as being in its essential nature blissful (svatassukhī) found in this work itself[143] ought to be explained to those who, following the Buddhistic doctrine, believe that pleasure and pain are included in the category of knowledge, for the reason that they are produced by causes which are non-different from knowledge, and to those who, by accepting the system of Kaṇabhakṣa (the exponent of the Vaiśeṣika system), believe that they are the special qualities of the soul (and not the flourishing and the decaying states of the senses).[144]

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several steps of the argument, that one comes to think that he directly perceives them.

142. *Sukhaduḥkhādhikaraṇa* is the sixth section of the first pāda of Nāthamuni's *Nyāyatattva-śāstra*, a work which is not extant now. Yāmuna refers to a few other adhikaraṇas of this śāstra. In fact, his *Ātmasiddhi* may be regarded as a brief exposition of *Nyāyatattva*. Compare *Nyāyasiddhāñjana*, Buddhipariccheda—"Nyāyatattva-prakaraṇam hi Ātmasiddhiḥ."

143. This discussion over svatassukhī is included among the portions of *Ātmasiddhi* lost.

144. Those who identify pleasure and pain with the flourishing or the decaying state of the senses mean by 'senses' the internal sense (manas) and not the outer senses; for, pleasure and pain are nothing more than the tranquil and the disturbed states of manas. cf. "tathā ca antaḥkaraṇaprasādāvasādayoreva sukhatvaduḥkhatvavyapadeśadarśanāt tatprasādāvasādāveva sukhaduhkharūpāvityarthaḥ." Rangarāmānuja ṭikā on *Nyāyasiddhāñjana, Buddhipariccheda.*

Though this view is defended here and elsewhere in *Ātmasiddhi,* it cannot be considered to be his final view, for, later on, he says that all reference to certainty, doubt, pleasure, pain and the like has for its object either some particular form of contact of knowledge with its object or knowledge possessing that contact. cf. *Nyāyasiddhāñjana, Buddhipariccheda* ". . . sukhaduhkheca nātmadharmau ityāditu vaibhavena matāntareṇa vā abhihitam anyathā kathamevam upasamhārārambhe brūyāt 'tadevam ātmasvabhāvabhūtasya caitanyasya viṣayasamśleṣaviśeṣagocara eva niścayaśamśayādi vyavahārabhedaḥ tadviśeṣabhāji caitanyevā.'" Rāmānuja says, in *Vedārthasamgraha,* 'that knowledge, which is in contact with a particular object, and which is considered the cause of pleasure or pain, is really pleasure or pain itself and not its cause. Besides knowledge, nothing else which could be called pleasure or pain is noticed.' 'yena viṣayaviśeṣeṇa viśeṣitam jñānam sukhasya janakamityabhimatam tadviṣayajñānameva sukham tadatireki padārthāntaram nopalabhyate.'

NYAYAKULISA

EDITED WITH INTRODUCTION AND NOTES

BY

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॥ श्रीः ॥

॥ ख्यातिनिरूपणवादस्तृतीयः ॥

अत्र [1]केचिदाहुः;—तत्त्वानुभूतिः प्रमेति न वाच्यम्। अनुभूतिरित्येव पर्याप्तेः। अतत्त्वानुभूतेश्शुक्तिकारजतादिसंविदो व्यवच्छेदाय तत्त्वविशेषणमुपादेयमिति चेन्न, तदसिद्धेः। न हि शुक्तिकारजतसंविदिति काचिदस्ति। शुक्तिकासंविदश्शुक्तिविषयत्वात् रजतसंविदोऽपि रजतविषयत्वात्। उभयविषयायाश्च संविदो घटपटविषयत्ववत् (विषयकवत् ?) तत्त्वावगाहनाविरोधात्। तथापि शुक्तिकामेव रजततया यानुभूतिर्विषयीकरोति, असावतत्त्वानुभूतिरिति चेन्न। तथाविधायाः कस्याश्चिदनुपलब्धेः, अनुपपत्तेश्च। तथाहि—विषयविशेषण (विशेष ?) विशिष्टा बुद्धयो भासन्ते। यदि शुक्तिकैव रजतात्मिका भवेत्, ततस्तेन विषयेण विशेषिता शुक्तिकारजतबुद्धिरुपलभ्येत। न चासतो विषयतया बुद्धिविशेषकत्वम्; निस्स्वाभावत्वात्। किञ्चित्स्वभावत्वे सत्त्वप्रसङ्गात्, ज्ञानान्तरेष्वप्यसद्विषयत्वप्रसङ्गाच्च। बाधाबाधाभ्यां विशेष[2] इति चेन्न, प्रत्ययत्वाद्बाधानुमानप्रसङ्गात्। देशान्तरादिषु यथा तथा वा सत एवार्थस्य मिथ्याज्ञानेष्वप्यालम्बनत्वान्नात्यन्तासद्विषयत्वानुमानं शक्यमिति चेत्; हन्तैवं मिथ्याज्ञानमेव न स्यात्, सद्विषयत्वात्तस्य। असत्संसर्गगोचरं मिथ्याज्ञानमिति चेत्, असत्संसर्गिगोचरं किमिति नेष्यते। असतो विषयत्वानुप-

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1. केचित्—गुरुमतानुसारिणः। "अत्रोच्यते" इति समाधानारम्भावध्येतत्पक्षोपन्यास इत्यवगन्तव्यम्। अन्यथाख्यातिरत्र निरस्यते। "अत्रोच्यते" इत्यादिना सा स्थाप्यते। "त्रय्यन्तनिष्णातास्तु" इत्यादिना पुनर्यथार्थख्यातिरुपवर्ण्यते। अन्ते चानिर्वचनीयख्यातिः प्रतिक्षिप्यते।

2. अर्थस्य बाधितत्वमेवासत्त्वम्। ईदृशासद्विषयकत्वं न सत्यरजतादिज्ञानान्तरेष्विति भावः।

पचेरिति चेत्, संसर्गेऽपि समानम्। अत एव संसर्गोऽपि क्वचिदिष्यत इति चेत्, तर्हि तस्यैव भाने मिथ्याज्ञानं न स्यात्। अथ संसर्गो यत्र क्वचित्सन्नपि शुक्तिकारजतयोरसन्नेव तत्संसर्गतया भातीति मिथ्याज्ञानमिति चेत्; तत्संसर्गत्वमेव सत्यमसत्यं वा?। प्रथमे मिथ्याज्ञानाभावः। द्वितीये त्वसत्यस्यापि भानादसत्ख्यातिप्रसङ्गः। [1]एतावन्मात्रमभ्युपगम्यत इति चेन्न; एतावत्पर्यवसानात् (एतावत्यपर्यवसानात्?) विप्रतिपन्नमसत्, ख्यातत्वात्, संसर्गविशेषवत्[2] इत्यनुमानात्॥

[3]बाधाबाधाभ्यां विशेष इति चेन्न। [4]अस्यैवानुमानस्य [5]बाधकत्वात्। अस्ति व्यवहारबाध इति चेन्न; देशान्तरादिषु सत्त्वेनाभ्युपेतस्य रजतस्यापि व्यवहरबाधात्। न ह्यसत् (न हि सत) सर्वत्र सर्वदा सर्वं व्यवहारमातनोति। कस्यचिद (द्) व्यवहरणमात्मनोऽपि नास्ति। ज्ञानस्यैव तदसिद्धेः। तस्मादसतो बुद्ध्यवच्छेदकत्वानुपपत्तेः भासमानेनैव रूपेण सर्वस्य सत्यतामभ्युपेत्य (सत्यताऽभ्युपेत्येत्य) तत्त्वार्थगोचरां शुक्तिकारजतबुद्धिं नोपलभामहे। न च तथाविधज्ञानोत्पत्तौ सामग्री चकास्ति। इन्द्रियाणां प्राप्यकारित्वेनाप्राप्तार्थप्रकाशनानुपपत्तेः। न च दोषसहकृतस्य चक्षुषस्तत्र सामर्थ्यमिति युक्तम्। दोषाणां कार्यविघातमात्रहेतुत्वेन कार्यान्तरोपजनकत्वायोगात्। न ह्यग्निसंसृष्टस्य कळमबीजस्याङ्कुरान्तरे सामर्थ्यमस्ति। न च कार्यदर्शनादस्यैव दोषविशेषस्यैषा रीतिरिति युक्तम्।

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1. रजतत्वस्य संसर्गस्य चान्यत्र सद्भावान्न तद्विषयेऽसत्ख्यातिप्रसङ्गः। सत एव संसर्गस्य शुक्तिकारजतसंसर्गत्वमात्रमसदेव भासत इत्यङ्गीक्रियते, गत्यन्तराभावादित्यर्थः।

2. संसर्गविशेषवत्—रजतसंसर्गे शुक्तिकानिरूपितत्ववदिति यावत्।

3. उक्तानुमाने बाधितत्वमुपाधिरिति भावः। तत्र बाधेत्यंशेन सपक्षवृत्तित्वं, अबाधेत्यंशेन पक्षावृत्तित्वञ्च प्रदर्शितम्, इति ध्येयम्।

4. अस्यैवानुमानस्य—ख्यातत्वरूपहेतोः।

5. बाधकत्वात्—सोपाधिकत्वबाधकत्वात्। अयं भावः;—विप्रतिपन्नं बाधितं ख्यातत्वादित्यनुमानेन रजतत्वेऽपि बाधितत्वसाधनात्पक्षवृत्तित्वेन न सोपाधिकत्वमिति॥

कार्यस्यैवासिद्धेरुपपादितत्वात्, इदमिति पुरोवर्तिन्यनुभवः रजतमिति च पूर्वानुभूतरजतविषयस्मृतिरित्येवमेवोपपत्तेश्च । रजतस्मृतिस्तत्र रजतमित्येवोल्लिखन्ती देशकालान्तरमुल्लिख्यैवोत्पद्यते, इयन्तु रजतमित्यनुभवाकारा बुद्धिरिति चेत्सत्यम् । तत एव दोषात्प्रमुषिततदवमर्शा सेति वदामः । ननु पुरोवर्तिनि पिण्डमात्रेऽवसिते रजतार्थिप्रवृत्तिरनुपलब्धा । रजतस्मृतिरपि न पुरोवर्तिनिखिलशिलाकाष्ठादौ प्रवृत्तिमुपजनयति[1] । तस्माच्छुक्तिकैव रजताकारेणानुभूयत इत्यभ्युपगन्तव्यमिति चेन्न । भेदाग्रहादपि प्रवृत्त्युपपत्तेः । स्वरूपभेदवादिनां भासमानयोरेव रजतपुरोवर्तिनोर्भेदाग्रहो दुरुपपाद इति चेन्न । संसर्गविरोधिवैधर्म्यविशेषरूपभेदाग्रहः प्रवृत्तिहेतुरिति विवक्षितत्वात्[2] । भावातिरिक्ताभावानभ्युपगमादग्रहासिद्धिरिति तु स्थूलावलोकिवचनम् । यतः तदधिकरणमात्रगोचरधियामधिकरणानां वा अभावतेति । सर्वत्र निर्वाहाद्भेदाग्रहादेव व्यवहारोपपत्तौ ततस्संसर्गबोधासिद्धेः[3] कार्यान्वितस्वार्थे शब्दानां व्युत्पत्त्ययोगादन्विताभिधानासिद्धिरिति शब्दाप्रामाण्यं प्रसज्यत इति चेन्न । व्यवहारवैलक्षण्यात् । न हि वयं शुक्तिकायां रजतार्थिनो व्यवहारमिव बाध्यं संसर्गबोधानुमापकं ब्रूमः । अपि त्वबाध्यम् । अतः कार्यवैजात्यात्कारणभेदसिद्धिः । अतो बाध्यमानस्य व्यवहारभेदस्य संसर्गग्रहमन्तरेणासंसर्गाग्रहादप्युपपत्तेः

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1. उपजनयतीति—इदं रजतमित्यत्र शुक्तिरेव रजततया भातीत्यङ्गीकार्यम् । अन्यथा प्रवृत्त्यनुपपत्तेः । न हि कश्चिदिदमंशमात्रज्ञानवान्प्रवर्तमानो दृश्यते । एवं रजतस्मरणं चेत्पृथगुच्यते तर्हि शुक्तिमात्रविषया प्रवृत्तिर्नैवोपपद्यते । नियामकाभावात् । रजतत्वस्य पुरोवर्तिभास्वरद्रव्यविशेषनिष्ठतया भानाभावेऽविशेषात्सर्वत्र प्रवृत्तिस्स्यात् । कुत्रापि वा न स्यात् । अतः रजतत्ववद्विषयकमेकं ज्ञानं तदेष्टव्यमिति भावः ।

2. विवक्षितत्वादिति—धर्म्यन्तरतादात्म्यभ्रमविरोधी विलक्षणो धर्मविशेष एव स्वेतरभेदः । न धर्मिस्वरूपम् । प्रकृते च शुक्तित्वस्यैव भेदरूपत्वेन तस्य चाभानाद्भेदाग्रहस्याक्षततया न प्रवृत्त्यनुपपत्तिरिति भावः ।

3. ततस्संसर्गबोधासिद्धेरिति—व्यवहारेण विशिष्टज्ञानानुमित्ययोगादित्यर्थः ।

संसर्गग्रहकल्पनायां बाधकस्योपन्यस्तत्वात् विभ्रमव्यवहारस्य [1]बाध्यव्यवहारबुद्धिविषयत्वेनाप्युपपत्तेः न क्वचिदतत्त्वानुभूतिरिति काचिदस्तीति किं तद्व्यवच्छेदेनेति ॥

अत्रोच्यते

वादिनां विमतेर्बाधाद्व्यवहाराद्भ्रमोक्तितः ।
स्वारस्याच्चान्यथाख्यातिः प्रसिद्धा नापनीयताम् ॥

इह खलु मिथोविरुद्धविविधस्वमतपरिपालनाय[1] विवदमाना वादिनस्तावदिदमित्थं मन्यन्त इति (इदमित्थमन्यथेति) च प्रतिजानते । तदिदमविरुद्धबुद्धीनां नोपपद्यते । तथाहि ;—कश्चित् शब्दो नित्य इति वदति । अन्यश्चानित्य इति । तयोस्तावदन्यतरेणान्यथाख्यातिशालिना भवितव्यम् । नित्यत्वानित्यत्वयोरेकस्मिन् शब्दे विरोधात् । ननु शब्दानित्यत्ववादिनोऽपि द्वे बुद्धी व्यवहारमुपजनयतः, शब्दगोचरा काचित् घटादिस्थानित्यत्वगोचरा च काचिदिति चेन्न । अविरोधाद्विवादानुपपत्तिप्रसङ्गात् । व्यवहारविरोधाद्विवाद इति चेन्न । अर्थविरोधमन्तरेण व्यवहारस्याविरोधात्[2] । दोषवशादपरामृष्टाधिकरणविशेषस्यानित्यत्वस्य शब्दासंसर्गाग्रहादेव संसर्गवत् विरोधाभिमान[3] इति चेत्, सिद्धं नस्समीहितम् । अविरोधे विरोधाभिमानस्यान्यथाख्यातित्वात् । अथ शब्दानित्यत्वयोरसंसर्गाग्रहो नैयायिकानाम्, असंसर्गग्रहोऽस्माकमिति ग्रहणाग्रहणयोर्विरोध इति चेत् ; तत्किमेवमधिकरणभेदेऽपि विरोध उत सामानाधिकरण्ये वा । नाद्यः । नीलपीतयोरिव भिन्नाधिकरणत्वेन

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1. बाध्यव्यवहारेति बहुव्रीहिः ।

2. शब्दप्रयोगात्मकस्य व्यवहारस्य न स्वतः परस्परविरोधः । अपित्वर्थद्वारैव, इत्थं च शब्दोऽनित्य इति नैयायिकवाक्येन शब्देऽनित्यत्वबोधोऽवश्यंभावीत्यन्यथाख्यातिसिद्धिः । स यदि तव न जायते तदा शब्दे नित्यत्वानित्यत्वरूपविरुद्धधर्मद्वयसमावेशस्याप्रसक्ततया कथं व्यवहारविरोधश्शक्योपपादन इति भावः ।

3. विरोधाभिमान इति;—अनित्यत्वशब्दयोरसंसर्गाग्रहमूलो युष्माकं संसर्गाभिमान इवास्माकं विरोधाभिमानः ।

ग्रहणाग्रहणयोरविरोधात्। विरोधे वान्यतरस्य क्वचिदपि सद्भावो न स्यात्। तथा च कस्य केन विरोधः। विरोधे च शब्दस्य न विवादविषयता[1] स्यात् वादिद्वयावगतविरुद्धधर्मनिरूपकतया। ताटस्थ्येन स्वयं [2]तदधिकरणताप्रसङ्गविधुरत्वात्[3]। नापि द्वितीयः। अप्रसक्तेः। न चासमानाधिकरणस्य सामानाधिकरण्यं प्रसञ्जनमन्तरेण वस्तुतस्सिद्ध्यति। प्रसक्तौ चान्यथाख्यातिस्स्यात्।

अथ युष्मदनवबुद्धासंसर्गबोधायास्माभिर्विगीर्यत इति मनुषे, तथापि न जानता भवतापि वेदितव्यम्। (विवदितव्यम्।) न हि [4]कस्य चित्पार्श्वस्थमनवबुद्धं सर्व (सर्प) मनवबोधयं (मवबोधयं) स्तेन विवदमानो दृश्यते। अत्र तु सोऽपि प्रतिवदतीति चेत्, स किं स्वाज्ञानमात्रकृतं वचो व्याहरति उत विपरीतज्ञानकृतम्, अथ स्वाज्ञातासम्बन्धवद्वस्तुद्वयावबोधजनितम्। नाद्यः। न जानामीतिवत्तस्याविवादरूपत्वात्। व्यवहारविशेषस्य विवादरूपतेति चेन्न। अर्थविशेषमन्तरेण शब्दमात्रभेदेन विवादत्वानिर्वाहात्, न जानामि नाधिगच्छामीत्यादिवत्। न द्वितीयः। भवद्भिरनभ्युपगमात्। अभ्युपगमे वा कृतं विवादेन। न तृतीयः। अविरोधाद्विवादत्वानुपपत्तिः (त्तेः)। न हि पदार्थव्यवहारस्तदसंसर्गप्रतिपादनं विरुणद्धि। प्रत्युतानुकूल एव। नह्यव्यवहृतयोः पदार्थयोरसंसर्गस्संसर्गो वा वक्तुं शक्यते। अतश्च स्वोपादेयं[5] स्वयमेव प्रतिषेधन्नसावन्यथाख्यातिवादी वक्तव्यः।

कथारम्भे वादिना प्रतिज्ञायां कृतायां हेतुरपि वक्तव्यो न वा?। वक्तव्योऽपि प्रतिज्ञावाक्येनैव साध्यधर्मज्ञाने तदज्ञाने वेति। न तावदवक्तव्यो हेतुः। उदाहरणान्ता-

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1. वादिद्वयाभिमतनित्यत्वानित्यत्वात्मकविरुद्धधर्मवत्तया विवादविषयता, पक्षतेति यावत्।

2. तदधिकरणतेत्यत्र तत्पदं विरुद्धधर्मपरम्।

3. विधुरत्वादिति—ग्रहणे सत्यग्रहणस्य कुत्राप्यसिद्धेरनित्यत्वकोटेरनुन्मेषादिति भावः।

4. कस्यचिदवबोधयन्नित्यन्वयः।

5. स्वोपादेयमिति—स्वानुकूलत्वेनोपादेयं पदार्थद्वयव्यवहारमनुपादेयत्वबुद्ध्या प्रतिषेधन्नन्यथाख्यातिवादित्वेन व्यवहर्तव्य इत्यर्थः।

वयवत्रयाभ्युपगमविरोधात्। नचाविज्ञातेऽपि[1]पक्षे हेतुप्रयोगः कार्याय घटते। प्रतिज्ञावैयर्थ्यप्रसङ्गात्। न च धर्मिमात्रज्ञानाय प्रतिज्ञापेक्ष्यते। साध्यविशेषाप्रतीतौ हेतोरनैकान्तिकत्वादिदोषचिन्तानवसरप्रसङ्गात्[2]। न च साध्यमात्रज्ञानाय। [3]व्यधिकरणासिद्ध्यादेरनवकाशप्रसङ्गात्। न चानन्वितोभयज्ञानाय। अनन्वयप्रसङ्गात्। न हि धर्म्यनिष्ठतया साध्यतयाववोधः कस्यापि जायते। सामान्यमात्रस्य सिद्धत्वात्। [4]न च सिषाधयिषितधर्मान्वयाप्रतीतावधिकरणत्वप्रतीतिस्संभवति। न चानन्वयेऽपि प्रतिज्ञावाक्यस्थपदसारिततया साध्यत्वमधिकरणत्वं वाध्यवसातुं शक्यम्। धर्मधर्मिणोर्व्यत्यासप्रङ्गात्[5]। ततश्च[6] धर्मिणो हेतोरनुगमाभावा[7]द्व्याप्त्यसिद्धिः। साध्यधर्मे च हेतोरवृत्तेस्स्वरूपासिद्धि[8]र्व्यधिकरणासिद्धिर्वेत्यादिदूषणोद्भावनप्रसङ्गः। तस्मात्साध्यधर्मवत्तया धर्मिणः प्रतिज्ञावाक्येनैवावगमे सिद्धे हेत्वपेक्षेति वक्तव्यम्। सा चान्यथाख्यात्यनभ्युपगमे न स्यात्। वाक्यजन्यबोधस्य प्रामाण्ये

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1. अविज्ञातेऽपीति—साध्यधर्म इति शेषः। यद्वा—साध्यधर्मवत्तयेत्यादिः।

2. प्रसङ्गादिति—साध्याभाववद्वृत्तित्वरूपस्यानैकान्तिकत्वस्य साध्यघटितमूर्तिकत्वेन प्रतिज्ञावाक्येन साध्यबोध एव हेतौ साध्यवद्वृत्तित्ववत्तदभाववद्वृत्तित्वमप्यस्ति न वेति विचारस्यावकाशस्स्यात्।

3. व्यधिकरणेति—व्यधिकरणासिद्धेः साध्याधिकरणावृत्तित्वरूपतया प्रतिज्ञावाक्येन धर्मिरूपाधिकरणाज्ञाने हेतुरधिकरणवृत्तिर्न वेति विचारस्यानवकाश इति भावः।

4. एवं धर्मस्य पक्षानन्वये साध्यत्वानुपपत्तिमुपपाद्य धर्मिणो धर्मानन्वये पक्षत्वानुपपत्तिमुपपादयति—न चेति। साध्यधर्माश्रयत्वस्यैव पक्षत्वादिति भावः।

5. प्रसङ्गादिति—प्रतिज्ञावाक्यस्थपदसमारितत्वस्याविशेषात् वह्न्यादेः पक्षत्वं पर्वतादेस्साध्यत्वं च प्रसज्येतेति भावः।

6. ततश्च—पर्वतादेस्साध्यत्वे वह्न्यादेः पक्षत्वे च।

7. अनुगमाभावात्—पर्वतादिना धूमस्य नियतसम्बन्धाभावात्।

8. व्यधिकरणेति—पक्षे हेत्वभावमात्रं स्वरूपासिद्धिः, यथा—शब्दो गुणः चाक्षुषत्वादिति। व्यधिकरणासिद्धिस्तु पक्ष इवान्यत्रापि साध्यसामानाधिकरण्याभावः। यथा—शब्दो गुणः द्रव्यत्वादिति। प्रयोक्तुरत्यन्तासामर्थ्यसूचनं प्रयोजनम्।

सिद्धे हेत्वपेक्षानुपपत्तेः। उपपत्तौ वा वेदवाक्येऽपि सा किं न स्यात्। अतोऽनवधृताप्तभावस्य पुरुषस्य वाक्यमन्यथामतिमपि जनयेदिति तदप्रामाण्ये स्थिते प्रामाण्यसिद्ध्यर्थं हेत्वपेक्षेत्येव शोभनम्।

किमर्थञ्च भवन्तः परेषां विपरीतधियां बोधविशेषमाधातुकामाः प्रबन्धेन हेतुजालमुल्लासयन्ति। न हि परेषां तत्तदज्ञानमात्रेण भवतां सिद्धान्तोऽभिधीयेत (ऽभिभूयेत ?)। न हि पामरजनाज्ञानेनाचेतनकाष्ठलोष्टाद्यज्ञानेन वा सर्वस्सिद्धान्तो व्याकुलीभवति। न च भवत्सिद्धान्तं यथावदनुभाष्य दूषयतां परेषामज्ञानमेवेति वचोऽर्थवत्। स्वयं च कदाचित्पराजितो महीयसीमाध्यात्मिकीं वेदनामनुभवसीति। एवं वादिनां विवादकार्यकारणतयान्यथाख्यातिसिद्धिः।

तथा बाधकस्य ज्ञानस्य [1]बाध्यप्रतिसम्बन्धिसापेक्षत्वात् बाध्यस्यान्यथाख्यानस्य सिद्धिः। तथा हि—इदं रजतमिति कदाचिदेको दोषदूषिताध्यक्षसामग्रीकः शुक्तिकां रजतमित्यध्यस्य समनन्तरमेव सम्पन्नपरिशुद्धसामग्रीकः स एव नेदं रजतमिति जानाति। तत्र यत् नेदं रजतमिति बाधकज्ञानं त[2]त्तथाविधशुक्तिकारजतज्ञानाभावे न बाधकं भवति। पक्षान्तरेऽपि भवत्येव तयोस्समानसमयत्व[3]विरोधादिति चेन्न। [4]तावन्मात्रेण बाधकत्वाभ्युपगमे समानविषयस्यापि तथाभावप्रसङ्गात्। न च नाशलक्षणो बाधः। बाधकाभिमतेन ज्ञानान्तरेण नित्यं तदभावात्। संस्कारस्य बाधकत्वेऽतिप्रसङ्गात्। [5]न च भेदाग्रहोपश्लेषात्स्व-

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1. बाध्यप्रतिसम्बन्धीति—बाध्यरूपप्रतिसम्बन्धीत्यर्थः।

2. तथाविधेति—पुरोवर्तिवस्तुविशेष्यकरजतत्वप्रकारकेत्यर्थः।

3. विरोधेति—ज्ञानद्वयस्य युगपदुत्पत्तिविरोधादिति भावः।

4. तावन्मात्रेणेति — तत्तदभावावगाहित्वरूपविरुद्धविषयकत्वमुपेक्ष्य ज्ञानयोर्यौगपद्यासम्भवमात्रेण बाध्यबाधकभावाङ्गीकारे अयं घटः अयमपि घट इत्यादि समानविषयकज्ञानयोरपि तत्प्रसङ्ग इत्यर्थः।

5. अन्यथाख्यात्यनभ्युपगमेऽपि बाधकत्वसम्भवमाशंक्य परिहरति—न चेति।

रूपमात्रस्यैव भेदज्ञानं बाधकमिति वाच्यम्। [1]पूर्वज्ञानस्यैवोत्तरं बाधकमिति प्रसिद्धेः। बाधकं हि यत्र ज्ञानमुत्पद्यत इत्यादि भाष्यप्रसिद्धेश्च। सर्वेषाञ्च ज्ञानानां स्वप्रागभाव-बाधात्, बाधकत्वप्रसङ्गाच्च। न च भेदाग्रहोपश्लेषात्स्वरूपमात्रज्ञाने बाध्यताव्यवहारः, तदपेक्षया चोत्तरस्य बाधकत्वमिति युक्तम्। [2]बाध्यसंसर्गेऽपि बाध्यताव्यवहारेऽतिप्रसङ्गात्। बाध्यभेदाग्रहा (बाध्याभेदग्रहा) त्स्यादिति चेन्न। [3]अत्रैवान्यथाख्यातिप्रसङ्गात्। [4]न चात्रापि भेदाग्रहश्शङ्कनीयः। बाध्यबाधकभावस्याप्रामाणिकत्वप्रसङ्गात्॥

कश्चायं भेदाग्रहः ?। न ताव[5]त्स्वरूपभेदाग्रहः। गृह्यमाणे स्वरूपे तदनुपपत्तेः। नापि वैधर्म्याग्रहः। निश्शेषवैधर्म्यग्रहस्य दुश्शकत्वेन तदग्रहस्या[6]निवर्तनीयत्वात्। वैधर्म्य-मात्राग्रहस्तु पुरोवर्तिरजतत्वयोर्न संभवति। पुरोवर्तिनो द्रव्यत्वादिरूपेण प्रतीतेः। रजतादेश्चाकारतया प्रतीतेः। भ्रान्तिवेळायामपि तथैव हि प्रतीतिः। इतरथा [7]शुक्तिव्यवहारा-नुदयप्रसङ्गात्। [8]रजतव्यक्तिस्त्वप्रतीतेति किं तस्या वैधर्म्य(र्म्या)ग्रहणेन। पश्चादपि च

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1. भेदाग्रहोपश्लिष्टस्वरूपज्ञाने भेदाग्रहांश एव भेदग्रहो बाधक इति पर्यवसानात्प्रसिद्धि-विरोध इति भावः।

2. बाध्यसंसर्गेऽपीति—वस्तुतः स्वयमबाध्यस्यापि बाध्यसंसर्गमात्रेणेत्यर्थः।

3. अत्रैवेति — भेदाग्रहभिन्नस्य स्वरूपज्ञानस्य तदभिन्नत्वेन ग्रहणमन्यथाख्यान-मेवेत्यर्थः।

4. न चात्रापीति—शुक्तौ योऽयं रजतभेदाग्रहः भेदज्ञानबाध्यः तद्भेदाग्रहेण ज्ञानद्वये बाध्यत्वव्यवहार इति नातिप्रसंगः। न वान्यथाख्यानमित्यर्थः।

5. स्वरूपेति—स्वरूपात्मकस्य भेदस्याग्रहः।

6. अनिवर्तनीयत्वादिति—निवर्तयितुमशक्यत्वादित्यर्थः।

7. शुक्तिकाव्यवहारेति—वस्तुतः शुक्तिकाविषयः रजतबुद्धिप्रयोज्यो य उपादानरूपो व्यवहारः तदनुदयप्रसङ्गादित्यर्थः।

8. रजतव्यक्तिस्त्विति—रजतत्वस्यैव स्मर्यमाणत्वादिति भावः।

न तद्गततया वैधर्म्यं गृह्यते, किन्तु शुक्तिगततया। [1]एतद्देशकालादिवैधर्म्यग्रहश्शुक्तिकायां भ्रान्तावपि जायत एव। न हि सर्वरजतव्यक्तीनां तच्छुक्तिव्यक्तिदेशकालविशेषसम्बन्धसम्भवः। [2]यस्तु रजतजातीयमात्रे न सम्भवतीति तद्विरुद्धं[3] प्रतिपन्नस्स भेद इति चेत्; हन्त नेदं रजतमिति बाधो न स्यात्; भवत्पक्षे तदा तद्विरोधिधर्मान्तराप्रतीतेः। शुक्तित्वप्रतिपत्तौ च नेदं रजतमिति बाधकल्पनं न स्यात्; [4]तस्यैव साक्षाद्बाधरूपत्वात्। बाध्यस्य (बाधस्य) विधिरूपत्वे विधिनिषेधा(ध?) व्यत्यासश्च। निषेधो बाध इति तुल्यार्थत्वात्। तस्मादसंसर्गाग्रहश्शिष्यते।

तत्रेदं चिन्तनीयम्—कोऽयमसंसर्गो नामेति। न तावत्संसर्गाभावस्तत्त्वान्तरं भवद्भिरुपेयते। दृश्ये प्रतियोगिनि [5]तन्मात्रोपलम्भस्य वा तन्मात्रस्य वा तदभावत्वेन स्वीकारात्। तन्मात्रोपलम्भस्याभावत्वे स्वयंप्रकाशोपलम्भवादिनः तदग्रहस्य सर्वत्र दुर्वचत्वापातः। न चात्र ग्रहणान्तरकर्मता नास्तीति तदग्रहश्शक्यो वक्तुम्। स्वयंप्रकाशतया व्यवहारसिद्धौ तस्याग्रहस्याकिञ्चित्करत्वात्। एकज्ञानवेद्यस्यान्यज्ञानावेद्यत्वात्। तन्मात्राभावपक्षे चात्राग्रहो न संभवति। दृश्ये प्रतियोगिनि सति स्मर्यमाणे पुरोवर्तिमात्रस्य गृह्यमाणत्वात्। न चात्र रजतस्य तत्संसर्गस्य वा दृश्यत्वं नास्तीति वाच्यम्। दृश्यमानसमसामग्रीकत्वात् रजतस्य। तत्संसर्गदृश्यतायाश्चानपेक्षणात्। तदपेक्षणे वा प्रत्यक्षबाधस्य रजतेऽनुपपन्नत्वप्रसङ्गात्। न चास्मर्यमाणत्वम्। भवत्पक्षे तस्य तदानीं स्मर्यमाणत्वात्। [6]तदंशखण्डने तस्य स्मरणता न प्रतीयत[7] इति चेन्न। प्रतीतिमात्रेण तस्याभावप्रतियोगितोप-

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1. 2. 3. वैधर्म्येत्यनेन किं यत्किञ्चिद्रजतवैधर्म्यं विवक्षितमुत सर्वरजतवैधर्म्यम्। नाद्य इत्याह—एतदिति। नान्त्य इत्याह—यस्त्विति। विरुद्धमिति च प्रतिपत्तिक्रियाविशेषणम्।

4. तस्यैवेति—शुक्तित्वस्यैव रजतत्वाभावात्मकत्वादित्यर्थः।

5. तत्पदमधिकरणपरम्।

6. तदंशखण्डन इति—ज्ञानद्वये स्मरणांशस्य विवेचन इत्यर्थः।

7. न प्रतीयत इति—तथा च दृश्ये प्रतियोगिनि स्मृतित्वेन प्रतीयमानस्मृतिविषय एवाभावज्ञान मधिकरणादेरभावरूपत्वं चाङ्गीक्रियत इति भावः।

पत्तेः। [1]इतरथा गृह्यमाणाभावोद्देशभेदेन पुरो न प्रतीयेत। [2]न चास्य प्रतियोगिता अबुभुत्सितेति वाच्यम्। रजतमस्ति वा न वेति प्रश्ने तद्बुभुत्सोपपत्तेः तदनन्तरमपि शुक्तिकारजत विज्ञानोदयात्। तस्मात्संसर्गप्रतियोगिनि रजते स्मर्यमाणे पुरोवर्तिमात्रोपलम्भं पुरोवर्तिमात्रं वा रजतसंसर्गाभावं वदतामिदं रजतमिति बाध्यज्ञानमेव बाधकमसंसर्गग्रहणमित्यापद्येत। अबुभुत्सामात्रं तु रजतजातीयप्रश्नोत्तरं विनिवर्तत एव। अतो भेदाग्रहस्यैवानुपपत्तेः कथं तर्हि(स्य) बाधः, तदुपश्लिष्टबाधो वा।

व्यवहारस्य बाध इति चेत्। तत्किं शब्दप्रयोगलक्षणस्य उत हानादिलक्षणस्य ?। न तावदाद्यः पक्षः। शब्दजनकस्य तज्जन्य (तज्जन्यस्य वा) वाक्यार्थज्ञानस्य बाधमन्तरेण तद्बाधानुपपत्तेः। [3]तज्ज्ञानसमानयोगक्षेमत्वात्तच्छब्दस्य। नापि द्वितीयः। हानादेः क्रियारूपस्याबाधात्। तत्र कस्याप्यविप्रतिपत्तेः। न च तदनुपपत्ति(तदनुत्पत्ति)मात्रेण बाधकत्वम्, तस्य [4]प्रमाणसाधारणत्वात्। न च तत्कार्यस्य; तत्तत्सामग्रीसमुत्पन्नस्य तत्तत्कार्यस्य सिद्धेः। कार्यवैजात्यं बाध इति चेन्न। अतिप्रसङ्गात्। तत्रैतत्स्यात्—साक्षा-

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1. इतरथेत्यादि—इतरथा स्मरणस्य, तत्र स्मृतित्वेन प्रतीयमानत्वविशेषणस्य चापेक्षणे। गृह्यमाणेति—गृह्यमाणस्य घटादेरभाव इत्यर्थः। घटवत्प्रदेशासन्नप्रदेशान्तरावच्छेदेन यदा अत्र घटो नास्तीति प्रतीति जायते तदा तत्र प्रतियोगिनः प्रदेशान्तरावच्छेदेन प्रत्यक्षत्वादेवाभावप्रतियोगित्वोपपत्त्या स्मृतिरेवानपेक्षितेति का प्रत्याशा स्मृतौ स्मृतित्वेन प्रतीयमानत्वविशेषणस्येति भावः।

2. प्रतियोगी बुभुत्सितप्रतियोगिताकत्वेन विशेष्यते। तथा च प्रकृते तदभावान्नाभावज्ञानमभावस्याधिकरणादिरूपत्वं चेत्यत्राह—न चेति।

3. तज्ज्ञानेति—ज्ञानबाधो हि विषयबाध एव। ज्ञानस्य स्वतो बाधासंभवात्। एवं शब्दप्रयोगस्य बाधोऽपि प्रयुज्यमानशब्दार्थबाध एव, शब्दस्यापि स्वतो बाधासंभवात्। इत्थं च शब्दप्रयोगबाधाभ्युपगमे ज्ञानबाध एवाभ्युपगतो भवति।

4. प्रमाणेति—इदं रजतमिति प्रमास्थलेऽपि तादृशज्ञानानन्तरं नियमेनोपादानरूपव्यवहारादर्शनात्तादृशज्ञानस्यापि बाधकत्वव्यवहारप्रसङ्ग इत्यर्थः॥ तस्य—व्यवहारानुत्पादकत्वरूपबाधकत्वस्य।

द्रजतजनितव्यवहारेण रजतजातीयमङ्गुळीयकादि जायमानमुपलब्धम्। अनेन पुनः भस्म जायते। तत्कार्यवैजात्यमत्र बाधोऽभिधीयते। बाध्यते हि रजतकार्यवत्तया भस्महेतुर्व्यवहार इति। तच्च नैवम्। अतिप्रसङ्गात्। अयं खलु शुक्तिकाविषयोऽग्निप्रयोगादिव्यवहारो भस्महेतुः। रजतविषयश्चाङ्गुळीयकादिहेतुः। अन्ये च सर्वे व्यवहारा अन्यस्यान्यस्य कार्यस्य हेतवः। तत्र स्वकार्यवतो व्यवहारस्य इतरकार्यवत्तया बाधस्सर्वत्र सुलभ इति कथमनेन बाध्यबाधकभावव्यवस्थावर्णनं कर्तुं शक्यते। यदि त्वंगुळीयकहेतुतयाभिमतस्य व्यवहारस्य भस्महेतुत्वमेव, को ह्यत्र विशेषः?। अन्यहेतुव्यवहारोऽन्यहेतुतयावगतः, अन्यश्चार्थोऽन्यात्मनावगत इत्युभयत्राप्यन्यथाख्यातिसिद्धेः। यदि चात्रापि भेदाग्रहश्शरणं स्यात्, ततोऽभिमानविशेषकृतबाधव्यवस्था न सिद्ध्येत्। अयञ्च व्यवहारभेदाग्रहो वस्तुभेदाग्रहान्नातिरिच्यत[1] इति कृतमत्र प्रपञ्चेन।

ननु किमनेन विकल्पज्ञानेन। यद्यथा लोके व्यवह्रियते तत्तथाभ्युपगममर्हति। इदं नेदमिति च ज्ञाने बाध्यबाधकभावेन लोके व्यवह्रियेते। किमत्र चोदनीयमिति चेत्; सत्यम्, तदेवात्र विविच्यते कथमयं लोकव्यवहारो वृत्त इति। न हि कश्चिदुपाधिमनालम्ब्य लोके शब्दप्रयोगोऽवकल्पते। तस्माद्बाध्यबाधकभावान्यथानुपपत्त्यान्यथाख्यतिसिद्धिः।

[2]व्यवहारोदयान्यथानुपपत्त्या च। स हि न संसर्गज्ञानमन्तरेणोदेति। भेदाग्रहे स्वरूपज्ञानमात्रेण व्यवहारस्सिद्ध्यतीति चेन्न। (शुक्ति) व्यवहारस्यापि तत्रोदयप्रसङ्गात्, नेयं शुक्तिरिति शुक्तेरपि स्फुरणात्। न च तदा शुक्तिभेदो गृहीत इति वाच्यम्। तत्रैवान्यथाख्यातिप्रसङ्गात्। असति भेदे भेदज्ञानमप्यन्यथाख्यातिरेव। न च शुक्तिव्यवहारस्य संसर्गज्ञानं हेतुः, रजतव्यवहारस्य तु भेदाग्रहमात्रमिति वाच्यम्। विशेषाभावात्, रजत एव नेदं रजतमिति मत्वापि प्रवृत्तिप्रसङ्गाच्च। न च तत्रापि नेदं रजतमिति रजतासंसर्गो गृहीत इति

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1. नातिरिच्यत इति—वस्तुभेदाग्रहतुल्ययोगक्षेमत्वात्तत्रोक्तदूषणानिस्तार इति भावः। यद्वा—व्यवहारस्यापि वस्तुत्वेनायं वस्तुभेदाग्रहरूप एव पर्यवस्यतीति भावः।

2. वादिनां विमतेरिति कारिकोक्तेन तृतीयेन हेतुना तत्सिद्धिप्रकारमुपपादयितुमारभते—व्यवहारेत्यादिना।

वाच्यम्। तत्रैवान्यथाख्यातिप्रसङ्गात्। तत्र संसर्गाग्रहो निवृत्तिकारणमप्यस्ति, तदभावोऽपि प्रवृत्तावपेक्षणीय इति चेत्; तर्कि भ्रान्तौ संसर्गग्रहमङ्गीकुरुषे, यतोऽत्र निवृत्तिकारणं न स्यात्। अत [1]उभयत्रापि प्रवृत्तिनिवृत्त्योरविशेषेण प्रसक्तेरर्थान्तरव्यवहारस्य चात्रैव प्रसक्तेर्न भेदाग्रहात्प्रवृत्तिरिति युक्तम्॥

अपि च यदि संसर्गज्ञानमुपेक्ष्य भेदाग्रहमात्रात्प्रवृत्तिरिति कथ्यते तर्हि शब्दाप्रामाण्यं प्रसज्यते। तथा हि;—पदार्थसिद्धेः प्रमाणान्तरतस्स्मृत्या वोपपत्तेर्वाक्यार्थसिद्धिरेवानन्यथासिद्धा शब्दं प्रमाणान्तरमवस्थापयति। तद्यदि विशिष्टावबोधमन्तरेण प्रयोज्यवृद्धव्यवहारो नावकल्पत इति तद्व्यवहारेण तस्य विशिष्टबोधो नानुमीयते, ततस्तद्बोधज्ञानलब्धविशिष्टवाचकत्वव्युत्पत्त्यनवक्लृप्तेर्वाक्यार्थ(र्था)सिद्धौ शब्दप्रामाण्यमेवोत्सीदेत्। [2]ननु प्रयोज्यवृद्धव्यवहारो न भ्रान्तव्यवहारतुल्यः; अबाध्यत्वात्। बाध्यस्तु भ्रान्तव्यवहार इति चेत्; स्यादेवं यद्यन्यथाख्यात्यनङ्गीकारेऽपि व्यवहारस्य बाधाबाधौ स्याताम्; तौ न सम्भवत इत्यनन्तरमेवोक्तम्। अपि च सम्भवेतां व्यवहारबाधाबाधौ। [3]तथापि कार्यवैजात्यं सामग्रीवैजात्ये

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1. उभयत्रापीति—अयं भावः; शुक्तिरजतस्थले रजतभेदाग्रहात्प्रवृत्तिः, रजताभेदाग्रहान्निवृत्तिरित्येवाङ्गीकार्यम्। न च वाच्यं निवृत्तौ रजतभेदग्रहस्यैव कारणत्वमङ्गीक्रियते बाधकाभावात् लाघवाच्चेति। सत्यरजतस्थले नेदं रजतमिति भ्रमदशायां निवृत्तेरिष्टतया तत्र रजतभेदग्रहाभ्युपगमेऽन्यथाख्यातिप्रसङ्गेन रजताभेदाग्रहस्यैव कारणताया एष्टव्यतयान्यत्रापि तथैवाश्रयणीयत्वात्। इत्थं च स्थलद्वयेऽपि प्रवृत्तिनिवृत्तिकारणयोः रजतभेदाग्रहतदभेदाग्रहयोस्सत्त्वेनोभयप्रसङ्गः। तत्र शुक्तिरजतस्थले भ्रमदशायां निवृत्तिरनिष्टा। सत्यरजतस्थले भ्रमदशायां प्रवृत्तिरनिष्टेति।

2. नन्वित्यादि—न शब्दप्रामाण्योत्सादप्रसङ्गः। व्यवहारबाधस्थल एव हि भेदाग्रहस्य कारणत्वादिति भावः।

3. तथापीत्यादि—व्यवहारबाधाबाधरूपकार्यवैजात्येन भेदाग्रहसंसर्गज्ञानरूपकारणवैजात्याङ्गीकारो न सम्भवति। कार्यवैजात्यस्य सामग्रीवैजात्यकल्पनमात्रेणापि चरितार्थतया त्वदभिमतसाधकत्वासंभवात्। तच्च सामग्रीवैजात्यमर्थसदसद्भावाभ्यामेवोपपन्नमिति नाबाध्यव्यवहारं प्रति विशिष्टज्ञानस्य कारणत्वकल्पनं शक्यमिति भावः।

विश्राम्यति। अर्थसदसद्भावाभ्यां च तद्द्वैजात्ये सिद्धे विशिष्टबोधकारणत्वकल्पनमप्रामाणिकमेव ॥

[1]अन्वयव्यतिरेकाभ्यां संसर्गबोधोऽपि कारणं किं नेष्यते। [2]अन्यथासिद्धत्वात्तयोः। न चार्थान्वयव्यतिरेकावन्यथासिद्धाविति वाच्यम्; अन्तरङ्गत्वात्। कार्यविशेषस्य ह्यर्थ एव साक्षात्कारणम्। मणिप्रभायां मणिबुद्ध्या प्रवृत्तस्य निर्बाधेऽपि व्यवहारे न संसर्गज्ञानं भवतामस्तीति कथमन्वयव्यतिरेकौ च सम्पद्येते। अतस्सर्वत्र व्यवहारे संसर्गबोधः कारणमित्यवश्याभ्युपगन्तव्यम्। अतो व्यवहारान्यथानुपपत्त्या अन्यथाख्यातिसिद्धिः ॥

तथा भ्रान्तिशब्दोऽपि यथार्थेभ्यो व्यावर्तमानोऽयथार्थ एव ज्ञाने पर्यवस्यति। भेदाग्रहे भ्रान्तिशब्द इति चेन्न। ज्ञानविशेषगोचरत्वात्। अन्यथा सुषुप्तावपि प्रसङ्गात्। भेदाग्रहे भेद(दि)ज्ञानमेव भ्रान्तिरिति चेन्न। कस्यचिदग्रहे तत्त्वज्ञानस्य भ्रान्तिशब्दवाच्यत्वादर्शनात्। बाध्यव्यवहारहेतुत्वेन स्यादिति चेन्न। निराकृतत्वात्तस्य। मिथ्याज्ञानं भ्रान्तिरिति च पर्यायौ। अतोऽपि न तत्त्वज्ञानं भ्रान्तिशब्दार्थः। तथा इदं रजतमिति मे मतिरासीदिति विशिष्टज्ञानं प्रत्यक्षमवसीयते। एवमनभ्युपगमे सर्वत्र संसर्गस्तज्ज्ञानं च न स्याताम्। विपरीतमवगतं मयेति हि भ्रान्तौ सार्वलौकिकः प्रतिभासः। न पुनरसंसर्गो नानुभूत इति। तस्माल्लोकप्रतीतिस्वारस्याच्चान्यथाख्यातिसिद्धिः ॥

यत्तूक्तं विषयमन्तरेण कथमेतज्ज्ञानमिति। क एवमाह नेति ?। एवं तर्हि शुक्तिकारजतसंसर्गस्य पारमार्थिकत्वं स्यात्। न स्यात्। विषयत्वपारमार्थिकत्वयोरर्थान्तरत्वात्। कथमसतो विषयत्वमिति चेत्; किमिदमत्रैव ?। अभ्रान्तविशिष्टबोधेऽपि समवायस्य सम्बन्धान्तराभावात्। अत एवासौ स्वयं सम्बन्धिभ्यामात्मसम्बन्धोऽपीति चेत्; एवमत्राप्यस्तु। अत्र तु समवाय एव नास्तीति चेत्, सत्यम्। अन्यत्रास्तीत्युक्तमेव। एवमेतदुक्तं भवति;—सम्यक्संसर्गबोधेऽपि समवायस्सम्बन्धिनौ च गोचरीभवन्ति, नार्थान्तरं च। समवायसंबन्धि-

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1. शङ्कते—अन्वयेति
2. परिहरति—अन्यथेति।

समवायस्यापि समवायस्वरूपानतिरेकात्। एवमसमीचीनबोधेऽपीति न क्वचिदत्यन्तासतो भानमिति ॥

कथमसन्निकृष्टस्यापीन्द्रियेण भानमिति चेत्; सन्निकृष्टस्यापि कथमिति कथ्यताम्। संसर्गस्य सहकारिणस्सत्त्वादिति चेत्, अत्रापि दोषस्य सहकारिणस्सत्त्वादित्यस्तु। दोषस्य सहकारित्वमसिद्धमिति चेन्न। संसर्गस्य वा कथं सिद्धम्। कार्यदर्शनादिति चेत्; तुल्यम्। दोषान्तरस्य कार्यप्रतिबन्धकत्वमेव दृष्टमिति चेन्न। दोषवैचित्र्यात्। यत्र हि दोषेण सामग्रीशैथिल्यं भवति तत्र कार्यानुत्पाद एव। यत्र तु स एव सामग्र्यन्तरीभवति तत्र कार्यान्तरोत्पादः। नह्येकस्यैकमेव सहकरोतीति नियमः। कालभेदेन बहुभिस्सहकृतस्यैकस्यैव विचित्रकार्यहेतुत्वदर्शनात्[1]। तत्राभिमतकार्यविशेषप्रतिपक्षसहकार्यन्तरस्य दोषशब्देन कीर्तनमेवात्र विशिष्यते। सर्वत्र च गुणदोषशब्दावभिमतत्यनभिमती एव सू(च)येते इति न किञ्चिदपहीनम् ॥

एतेन संशयापलापोऽपि प्रत्युक्त एव। स खलु संशयेऽहमिति मानसप्रत्यक्षसिद्धो नापलापमर्हति। विरुद्धानियतानेकार्थावलम्बनश्च सः। नह्यसौ स्मृतिरिति संभवति। सा हि तत्तदनुभवजनितसंस्कारोन्मेषलब्धात्मा भिन्नेति न मिथो विरोधमनुभवितुमुत्सहते। अत एवानियमोऽपि न संभवति, प्रत्येकं स्वविषयनियतत्वात्।

विप्रतिपन्नं ज्ञानं यथार्थं ज्ञानत्वात् संप्रतिपन्नवदित्यनुमान[2]माश्रयासिद्धिकालात्ययापदेशयोरन्यतरेण निरस्तमिति वेदितव्यम् ॥

एवं प्रमाणसिद्धयोस्संशयविपर्ययोरतत्त्वविषययोरप्रमात्वात्तद्व्यवच्छेदाय तत्त्वानुभूतिः प्रमेति सविशेषणमेव लक्षणं लाक्षणिकाः केचिद्विलक्षणास्संचक्षते।

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1. एवं च एकस्यैवेन्द्रियस्य संसर्गरूपसहकारिसमवधाने प्रमात्मककार्यजनकत्वम्। दोषरूपसहकारिसमवधाने भ्रमात्मककार्यजनकत्वं च नानुपपन्नमिति भावः।

2. आश्रयासिद्धीत्यादि—विशिष्टज्ञानरूपस्य पक्षस्यान्यथाख्यातिभीतेन त्वयानभ्युपगमादाश्रयासिद्धिः। तदभ्युपगमे तस्मिन् याथार्थ्यसम्पादनस्य दुर्लभतया बाध इत्यर्थः ॥

त्रय्यन्तनिष्णाताः कतिचिदन्यथा व्याचक्षते । सर्वमेव ज्ञानं यथार्थम् । पञ्चीकृतभूतारब्धत्वाद्विश्वस्य, सर्वस्य सर्वत्र यथासंभवं विद्यमानत्वात् तत्तदल्पभूयस्त्वाभ्यां बाधाबाधव्यवस्थोपपत्तेः । स्वाप्नार्थानां यथानुभवं परमार्थानामेव ईश्वरसृष्टत्वस्य सूत्रकारैरेव सन्ध्ये सृष्टिराह हीत्युपपादितत्वात्, क्वचिद्भेदाग्रहाद्व्यवहारोपपत्तेश्चेति । [1]तथाहि ;—

> व्यवहारविरोधेन बाधाद्विमतिसंभवः ।
> भेदाग्रहाद्व्यवहृतिर्नैरन्तर्येण भातयोः ॥

यो यस्मिन्न संभवतीति निरूपितो धर्मः स तस्माद्भेदः । यथा शुक्तित्वं रजतेऽसंभवत् रजतात् । तस्य भेदस्याग्रहे सति स्वरूपेण निरन्तरं भातयो[2] श्शुक्त्यधिष्ठानरजतत्वयोर्विपरीतबाध्यव्यवहारहेतुत्वमुपलभ्यते । यद्यपि भूतानां पञ्चीकरणलब्धपरस्परव्याप्त्या शुक्तिकायामपि सादृश्याद्रजतैकदेशो विद्यत एवेति सिद्धान्तः । तथापि न विद्यत इति कृत्वा चिन्त्यते वाद्युदाहरणप्रसिद्ध्यनुरोधायेति ॥

तत्र यदुक्तं भिन्नसहकारिसन्निपातात् भिन्नास्वर्थक्रियासु केयं बाध्यबाधकभावव्यवस्थेति । तत्रोच्यते—

> भेदाग्रहावळिं प्राप्तिं (वळिप्राप्तं) (वधिप्राप्तं) बाध्यमित्यभिधीयते ।
> [3]भेदग्रहस्तथा तस्य बाधकत्वेन निश्चितः ॥

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1. पूर्वं वादिनां विमतेरित्यादिना तार्किकेण हेतुपञ्चकेनान्यथाख्यातिसिद्धिरुपवर्णिता । तत्र विमतिबाधव्यवहाराणां शुक्तिकारजतादिस्थले विशिष्टज्ञानरूपान्यथाख्यात्यभावेऽप्युपपत्तिरुपवर्ण्यते—तथा हीत्यादिना ।

2. निरन्तरं भातयोरिति—अधिष्ठानं न शुक्तित्वरूपधर्माश्रयतया भासते, रजतत्वं च नापणस्थव्यक्तिविशेषनिष्ठतया ;—अतोऽत्र निरन्तरभानं रूपरूपिणोरिति ज्ञेयम् ।

3. अत्र भेदग्रहपदमभेदग्रहस्याप्युपलक्षकम् ; तथा भेदाग्रहपदमभेदाग्रहस्याप्युपलक्षकम् । तेन सत्यरजतस्थले नेदं रजतमिति भ्रमदशायां जायमानस्य पुरोवर्तिनि रजताभेदाग्रहप्राप्तस्य हानस्य बाध्यत्वम् । तदभेदग्रहप्राप्तस्योपादानस्य बाधकत्वञ्च सिद्ध्यति ॥ अत एव कदाचिदिति कारिकायां अग्रहोत्थमिति सामान्योक्तिः ।

व्यवहारद्वयस्य परस्परविरोधः प्रत्यक्षसिद्ध एव। रजतार्थिनो हि रजताद्भेदाग्रहे शुक्तिकायामुपादानम्। भेदग्रहे च हानम्। तयोर्हानोपादानयोरेकेन क्रियमाणयोरेकत्रैकदा विरोधे सिद्धे कस्य केन बाध इति चिन्तायां संसर्गज्ञानपक्ष इव प्रबलस्य बाधकत्वम् इतरस्य बाध्यत्वमिति किं न निश्चीयते

कदाचित्कस्य चित्प्राप्तमग्रहोत्थं हि दुर्बलम्।
सर्वेषां सर्वदा चैव [1]तत्त्वग्रहणसंभवात् ॥

[2]अपि च

अग्रहोत्थव्यवहृतौ न सिद्ध्येदभिसंहितम्।
वस्तुभेदस्य तस्यैव तत्तत्कार्येषु शक्तितः ॥

न चात्रापि सि(बु)द्धेरन्यथाख्यातित्वम्। [3]आत्मनो रजताभिलाषस्य पारमार्थिकत्वात्। सामान्यतो रजतस्य च परमार्थत्वेनाभिलषितत्वात्। साभिलाषस्य तस्याभिलषितरूप्यभेदाग्रहसमुत्थप्रवृत्तिभेदेनाभिलषितार्थानवाप्तौ (प्त्या) प्रवर्तमानाभिसंहितानवापकत्वलक्षणः प्रवृत्तेर्बाधो भवति। न चात्राभिलषितप्रापकोऽयं व्यवहार इत्यध्यवसायोऽन्यथाख्यातिरिति वाच्यम्। तत्रापि भेदाग्रहादेव तथा व्यवहारोपपत्तेः। अभिलषितप्रापकाद्रजतव्यवहारादन्य(स्य) व्यवहारस्य तदा हि भेदो गृह्येत, यदा समीचीनविशिष्टरजतज्ञानादस्य

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1. तत्त्वग्रहणसंभवादिति बहुव्रीहिः। यथावस्थितवस्तुग्रहणात्मकभेदग्रहसंभूताद्धानादिकात् अग्रहोत्थमुपादानादिकं दुर्बलमित्यन्वयः।

2. एवं हानोपादानरूपव्यवहारयोः प्राबल्यदौर्बल्यहेतू सर्वसम्बन्धित्वविशिष्टसार्वकालिकत्वकतिपयसम्बन्धित्वविशिष्टकादाचित्कत्वे इत्यभिधाय अभिमतप्रापकत्वतदप्रापकत्वयोरपि प्राबल्यदौर्बल्यहेतुत्वं संभवतीत्याह—अपि चेत्यादिना।

3. उपादानरूपो मदीयो व्यवहारः मन्निष्ठाभिलाषविषयरजतप्रापक इति बुद्धेः अभिलाषाभावादन्यथाख्यातित्वमुच्यते, उत तद्विषयरजताभावात्, अथ व्यवहारस्य तत्प्रापकत्वाभावादिति विकल्पमभिप्रेत्य क्रमेण समाधत्ते—आत्मन इत्यादिना।

ग्रहणस्मरणात्मकज्ञानद्वयस्य भेदग्रहः। स च तदा, यदा रजतादेव शुक्तेः[1]। अतो विशिष्ट-रजतज्ञानादस्य ज्ञानद्वयस्य भेदाग्रहात्तत्कार्यभूतो व्यवहारः प्रवर्तते॥ तद्बाधा[2]त्तदर्थं ज्ञानमपि बाधितं भवति। न चैवमिन्द्रियादेरपि बाध्यत्वप्रसङ्गः, साधारण्यात्। [3](असाधारण्यात्) असाधारणस्तु रचनाविशेषवान् शब्दोऽपि बाध्यत एव। एवं विरुद्धव्यवहारयोर्द्वयोर्वादिनोः परस्परं वादोऽपि युक्तः जयपराजयौ च। ते च तत्र भेदाग्रहविशेषास्स्वयमूहनीयाः। भेदग्रहणहेतुदौर्बल्याभिमानेन भेदाग्रहः प्रतितिष्ठत्येव। अभिमानश्च भेदाग्रहान्तरमिति न सङ्कटं किञ्चित्।

यत्तु भेदाग्रहात्प्रवृत्तावभेदाग्रहान्निवृत्तिरपि स्यात्। भेदग्रहादेव निवृत्तावरजतबुद्ध्या रजतान्निवृत्तिर्न स्यादिति। नैतद्युक्तम्;

यतो रजतवैधर्म्यात्तत्र भेदाग्रहे सति।

तन्नैरन्तर्यभानेन तत्प्रवृत्तिः प्रता(जा)र्य(य)ते॥

नेदं रजतमिति रजतादेव तदर्थिनोऽपि निवर्तमानस्य इदमिति पुरोवर्तिग्रहो न रजतमिति रजताभावस्मरणं यथा इदं रजतमित्यत्र वर्णितम्। [4]ताभ्यां निरन्तरवृत्ताभ्यां यस्साक्षाद्रजतज्ञानेन व्यवहारः स जायते। न चात्र रजतसंसर्गप्रतीतिमभ्युपेमः, यतोऽन्यथाख्यातिस्स्यात्। न रजतसंसर्गाग्रहमात्राधीनं (हानम्), यतो हानोपादाने युगपत्प्रसज्येयाताम्। अतो यत्किञ्चिदेतत्॥

यत्तु भेदाग्रहमात्रेण व्यवहारोत्पत्तौ प्रयोज्यवृद्धस्य संसर्गज्ञानानुमानं न स्यादिति। तदपि व्यवहारे वैषम्यात्परिहर्तव्यम्।

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1. शुक्तेरिति—भेदग्रह इत्यनुषङ्गः।
2. तदर्थमिति—व्यवहारफलकमित्यर्थः।
3. असाधारण्यादिति पाठे ज्ञानस्येत्यादिः।
4. ताभ्यामित्यादिग्रन्थः शुक्तिरजतस्थलविषयः। ताभ्यां-पुरोवर्तिग्रहरजतस्मरणाभ्याम्।

व्यवहारवैषम्यस्य सामग्रीवैषम्यमात्रेण चरितार्थत्वात्, वस्तुसदसद्भावाभ्यां च सामग्रीभेदसिद्धेः किं संसर्गज्ञानेनेति चेदुच्यते ॥

सर्वोऽर्थश्चेतनैर्ज्ञातो व्यवहाराय कल्पते ।
अज्ञानं हि क्वचित्कल्प्यं भ्रान्तौ बाधकदर्शनात् ॥

इच्छातो हि चेतनानां प्रवृत्तिः । सा चोपकारस्मृत्या । उपकारश्च तत्तज्जात्यादिधर्मविशिष्टैः पदार्थैः । यदि ते विशिष्टा न प्रतीयेरन् कथमुपकारस्मृतिरुपजायेत । न हि जात्यादिमात्रादाश्रयान्तराद्वा कश्चिदुपकारः । अतस्स्वरसवाहिविशिष्टज्ञानजनितोपकारस्मृत्या सर्वस्मिन्व्यवहारे सामान्यतस्सिद्धे क्वचित् बाधकदर्शनात् (अ)संसर्गा(र्ग)ग्रहेऽपि संसृष्टबोधभेदाग्रहात् संसृष्टबोधवदुपकारस्मृतिर्जायते (इति) केवलमग्रह एव कल्प्यः । भेदग्रहस्य प्रतिबन्धकत्वात्, तदभावस्तु प्रतिबन्धकाभावमात्रम् । न च मूलभूते संसर्गज्ञाने प्रवृत्तिकारणे सिद्धे तदुपजीविनो निरन्तरज्ञानस्य प्रवृत्तिहेतुत्वमिति युक्तं वक्तुम् । [1]एतेन कदाचित्संसर्गसद्भावे तज्ज्ञानमन्तरेणापि निरन्तरसंसर्गज्ञानमात्रेण प्रवृत्तस्य[2] संवादोऽप्युपपन्न इति द्रष्टव्यम् ॥

यत्तु प्रतिज्ञानन्तरं हेतूपन्यासोऽन्यथाख्यात्यनभ्युपगमे न स्यादिति । तत्रोच्यते ;—

नैरन्तर्येण शब्देन स्मृतयोर्धर्मधर्मिणोः ।
अन्वयज्ञानसिद्ध्यर्थं हेतूपन्यासकांक्षणम् ॥

वैधर्म्याग्रहमात्रेण व्याहारो धर्मधर्मिवत् ।
प्रागुक्तेनैव मार्गेणेत्यवद्यं नैव किञ्चन ॥

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1. एतेनेति—अबाध्यव्यवहारं प्रति संसर्गज्ञानं कारणम् । बाध्यव्यवहारं प्रति भेदाग्रहः तन्मूलकं ज्ञानद्वयं वा कारणम् इति विविच्यानङ्गीकृत्य उत्सर्गतस्संसर्गज्ञानस्यैव कारणत्वम् । क्वचिद्भेदाग्रहे विशिष्टज्ञानभेदाग्रहात्प्रवृत्तिरित्यङ्गीकारेणेत्यर्थः ।

2. प्रवृत्तस्येति—मणिप्रभायां मणिबुद्ध्या प्रवृत्तस्येत्यर्थः ।

निरन्तरसामग्रीसन्निपातान्निरन्तरधर्मधर्मिविज्ञाने जाते विशिष्टबोधवत् व्यवहारस्सर्वोऽपि प्रवर्तत एव। भवत्पक्ष इव यथार्थं संसर्गं बोध्यमिच्छद्भिरस्माभिरपि हेत्वपेक्षा अनाप्तवाक्येषु नियत (नीयत) इति (किं) नोपपद्यते। तथा हि—

[1]अयोग्येभ्यस्समुत्कृष्टाः पदार्थास्स्वैः पदैस्स्मृताः।
यया बुद्ध्या प्रकाश्यन्ते सा विमर्श इति स्मृता॥

[2]सा समष्टिस्स्मृतीनां हि निरन्तरसमुद्भवा।
भेदाग्रहेण प्राप्नोति वाक्यार्थमतितुल्यताम्॥

अत एव हि लोके सर्वत्र पुरुषवाक्येषु तत्तत्पदार्थनिरन्तरस्मृतिमात्रे सिद्धे मूलप्रमाणोपजीवनेनान्विताभिधानमभियुक्ता बहुमन्वते। यद्यपि पूर्वोत्तरप्रतीत्योराकारभेदो नोपलभ्यते, तथापि व्यवहारविशेषसिद्ध्यर्थमभिधानञ्चाभ्युपेतव्यमेव। यद्यभिहितमपि बाध्येत, ततो बाधाबाधव्यवस्थैव शाब्दे न स्यात्। [3]अभिधानशैथिल्ये च दोषाणां व्यापारः। नैराकांक्ष्यादेस्तथा दर्शनात्। [4]ज्ञानस्य च विषयाभावेऽसत्ख्यातिरित्येवापद्येत। अन्यत्र सत्त्वान्नैवमिति चेन्न। प्रतीतदेशेऽसत्त्वात्। अन्यत्र सत्त्वस्यार्थान्तरसत्त्ववदनुपकारकत्वात्। यदाकारो हि प्रकाशः तदाकारस्य सत्त्वाभावात्। तस्मात्सर्वा एव बुद्धयो यथार्था इत्येव शोभनम्॥

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1. हेत्वपेक्षायाः विमर्शोपयोगित्वं सूचयितुं विमर्शस्वरूपमाह—अयोग्येभ्य इति।

2. पूर्वं वैधर्म्याग्रहमात्रेणेत्यनेन शुक्तौ रजतभेदाग्रहस्थानीयः शब्दप्रयोगस्थले पर्वतादौ साध्यवह्नेदाग्रह उक्तः। इदानीं तत्रत्यग्रहणस्मरणात्मकज्ञानद्वये विशिष्टज्ञानभेदाग्रहस्थानीयः तत्तत्पदार्थस्मृतिसमुदाये विशिष्टज्ञानभेदाग्रह उच्यते—सा समष्टिरिति।

3. अभिधानेति—दोषस्तावदभिधानमेव निरुन्धे, नत्वभिहितं बाधते। नैराकाङ्क्ष्यासान्निध्यरूपदोषद्वयविषये युष्माभिरपि तथैवाभ्युपगमादयोग्यत्वरूपदोषविषयेऽपि तस्यैवोचितत्वादिति भावः।

4. यदि संसर्गासद्भावस्थलेऽपि तस्य बोध्यत्वमिष्यते तदाऽसत्ख्यातिप्रसङ्ग इत्याह—ज्ञानस्येत्यादिना।

[1]यत्तु कश्चिदाह—परमार्थविषया बुद्धिरिति नोचितम्। परमार्थस्य विषयभावानुपपत्तेः। यत्तु विषयीभवति तज्जडमेव। इतरथा प्रकाशनैरपेक्ष्यात्। [2]न हि स्वयंप्रकाशाया ज्ञप्तेर्विषयभावो दृष्टः। सापेक्षत्वानपेक्षत्वयोरेकत्र विरोधात्। अतो जडस्याजडायां संविदि सिद्ध्यतस्तत्राध्यस्तत्वात्पारमार्थ्यं दुर्भणम्। बहिरेव परमार्थसतोऽर्थस्य ज्ञानेन विषयभावसिद्धिरिति चेत्; कोऽयं विषयभावो नाम। न तावत्संयोगादिलक्षणस्सम्बन्धो ज्ञानार्थयोरुपपन्नः। ज्ञानस्य निर्धर्मकत्वात्। बाह्यार्थस्य च सधर्मकत्वेऽपि प्राकट्यवादप्रतिक्षेपात्। तदतिरिक्तार्थधर्मस्य स्वाभाविकत्वे सर्वदा प्रकाशप्रसङ्गात्। ज्ञानसमानयोगक्षेमस्य कादाचित्कस्य प्राकट्यवत्प्रतिक्षेपात्। ज्ञानज्ञेययोरध्यासाधिकरणत्वव्यतिरेकेण तत्सं(न सं)बन्धः कश्चिदुपपद्यते। किञ्च दृश्योऽयमखिलः प्रपञ्चः [3]ख्यातिबाधान्यथानुपपत्त्या अनिर्वचनीय इत्यर्थापत्त्यावसीयते। अतः कथं परमार्थविषया बुद्धिरिति।

अत्रोच्यते—

पारमार्थ्यं विनार्थस्य न स्वरूपान्तरं भवेत्।
ज्ञानस्य च स्वभावोऽयं [4]यदर्थप्रवणात्मता ॥

एतत्किलोक्तं विश्वमपि दृश्यं जडरूपमेवेति। किमतः? न हि जडमित्यपरमार्थपर्यायं लौकिका मन्यन्ते। न हि जडाजडयोरध्यासमन्तरेणान्यस्सम्बन्धो नोपपद्यत इति युक्तम्। विषयविषयिलक्षणस्य सिद्धेः। यद्यपि ज्ञेयसमवेतं प्राकट्यादिपदवेदनीयं न किञ्चिद्रूपान्तर-

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1. अथानिर्वचनीयख्यातिं दूषयितुमुपन्यस्यति— यत्त्विति।

2. नहीति—स्वप्रकाशस्वरूपमजडत्वं प्रकाशनिरपेक्षत्वपर्यवसन्नम्। तथा च प्रकाशसापेक्षत्वतन्निरपेक्षत्वयोरेकत्र समावेशो दुर्घटः।

3. ख्यातीत्यादि—ख्यातिबाधान्यथानुपपत्तिरूपया अर्थापत्त्या अनिर्वचनीय इत्यवसीयत इत्यन्वयः।

4. अर्थप्रवणात्मतेति—परमार्थप्रकाशकत्वस्वरूपतेत्यर्थः। ज्ञानस्य निर्विषयकत्वं न वा असत्यविषयकत्वं स्वभाव इत्यर्थः।

मस्ति, तथापि ज्ञानं ज्ञेयप्रवणस्वभावमिति तत्स्वभाव एव सम्बन्धपक्षे निक्षिप्यते। न हि ज्ञानं कस्यचिदित्यपहाय रूपान्तरेण चकास्ति। इदमेव हि रूपमस्य प्रामाण्यं स्वतो निर्वहतीत्युक्तं स्वतः प्रामाण्ये। न च निर्धर्मकत्वाज्ज्ञानस्येदं रूपमसम्भावनीयमिति वाच्यम्। धर्मिस्वरूपानन्तर्गतत्वस्य (न्तर्गतत्वात्) स्वभावस्य। न च निर्धर्मकत्वमपि ज्ञानस्य। पारोक्ष्यापरोक्ष्यानुभवत्वस्मृतित्वादीनां बहुळमुपलब्धेः। न च तैजसमेव (जडमेव) ज्ञानेन वेद्यत इति नियमः। अतीतानागतानां अन्यसमवेतानाञ्च ज्ञानानामप्यनुमानादिगम्यत्वदर्शनात्। अहमर्थस्यात्मनस्सोऽहमिति प्रत्यभिज्ञायमानत्वदर्शनाच्च। न चैषामपि जडपक्षान्तर्भावो युक्तः। तथा...[सत्य]जडस्य कार्यस्यापि (कस्याप्य)सिद्धेः अनुपपत्तेश्च। न चैषां वर्तमानानां स्वाश्रयं प्रत्यन्येन सिद्धिरस्ति। स्वयं सिद्ध्यतोऽपि जडत्वे कस्तर्ह्यन्योऽजडो नाम; यः[1]परमार्थस्स्यात्। वृत्त्यनवच्छिन्नं चैतन्यमेवात्मा, [2]तत्रापि स्वयं प्रकाशत इति चेन्न। न चैवं प्रत्यक्षमनुभूयते। जानामीति सकर्मकस्य सकर्तृकस्यैव ज्ञानस्य प्रत्यक्षसिद्धत्वात्। तदतिरिक्तस्य योग्यानुपलब्ध्या निरस्तत्वात्। तदेतदात्मनिरूपणे विस्तरेण प्रतिपादयामः। तस्माज्जडमजडं वा यत् ज्ञानेन भासते व्यवहारयोग्यां दशामनुभवतीति यावत् तत् ज्ञेयम् - अत एव हि स्वतो निराकारमपि ज्ञानं पटज्ञानं घटज्ञानमिति नानावच्छेदभिन्नमवभासते। न च ज्ञेयस्य बाधादपरमार्थत्वम्। ज्ञानविषयत्वस्य बाधे प्रतिभासविरोधात्। तत्सत्त्वबाधे ज्ञानस्य निरालम्बनत्वप्रसङ्गात्। अनवभासमानेन रूपेणालम्बनत्वानुपपत्तेः। सद्विलक्षणस्यापि सदात्मना भानाभ्युपगमेऽन्यथाख्यातिप्रसङ्गात्। बाधस्य च निवर्तकत्वे [3]रूपान्तरसिद्ध्यनुपपत्तेः। अबाधकत्वे सत्त्वस्यैव सिद्धेः। तस्मात्ख्यातिबला(बाधा)वलम्बनेना(न)वलम्बने वा न किञ्चित्सद्विलक्षणं नाम सिद्धिमृच्छति।

[4]विशेषतश्चाऽनिर्वचनीयख्यातिपक्षानुपपत्तिः। स हि न तावदनिर्वचनीयमित्येव भाया-

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1. परमार्थस्स्यादिति—त्वन्मते जडस्यापरमार्थपर्यायत्वादिति भावः।
2. तत्रापीति—अतीतानागतपरगतज्ञानानुमानादिस्थलेऽपीत्यर्थः।
3. रूपान्तरेति—रूपान्तरं = अनिर्वचनीयत्वम्, धर्मिण एव निवृत्तेरिति भावः।
4. एतावता प्रपञ्चस्य सद्विलक्षणत्वविशिष्टासद्विलक्षणत्वात्मकानिर्वचनीयत्वघटकस्सद्वि-

(ना)त्। असिद्धेः। अस्तीति हि प्रतिभासः। न च तत्प्रतीतिबाधाभ्यां कल्प्यः। तथाप्यन्यथाख्यातिप्रसङ्गात्। अपि च प्रतीतिस्सत्त्वं व्यवस्थापयति। बाधश्चासत्त्वम्। केनानिर्वचनीयत्वं सिद्ध्यतीति न विद्मः। द्वाभ्यामेवेति चेत् न। स्वस्वमात्रविषयमन्तरेणार्थान्तरासिद्धेः। न हि घटपटबुद्धिभ्यां [1]पुरुषाध्यवसायस्सम्भवति। किञ्च यद्यनयो[2]र्विरोधोऽन्यतरत्सत्यम्। अथाविरोध उभयमेव सत्यम्। प्रकारान्तरं नोपलभामहे। किञ्चोभयविधिर्यथा विरोधान्नोपपन्नस्तथोभयनिषेधोऽपि। नचोभयविधेरर्थान्तरमुभयनिषेधः। अन्यतरप्रतिक्षेपरूपत्वादन्यतरान्तरस्य। नीलपीतवत्परस्परप्रतिक्षेपेऽपि पक्षान्तरावकाशो न विरुध्यत इति चेन्न। उभयप्रतीतिमन्तरेण प्रतीत्यन्तरादर्शनात्। न ह्यस्तीति नास्तीति वादिना (विना) प्रतीतिरस्ति। [3]तदवान्तरभेदत्वाद्विश्वस्य। [4]नीलपीतयोस्तु श्वेतादिप्रतीत्या पक्षान्तरसिद्धिः। [5]तत्राप्यर्थापत्त्या पक्षान्तरं सिद्ध्यतीति चेन्न। अन्यथैवोपपत्तेः। सदसत्प्रत्ययो हि स्वविषयाभ्यां सदसद्भ्यामेवोपपद्यते। अपि चोभयप्रतिक्षेपाविरोधे पक्षान्तरसिद्धिः। पक्षान्तरसिद्ध्या चोभयप्रतिक्षेपावरोध इत्यन्योन्याश्रयता। न हि नीलपीतानपेक्षश्वेतप्रतीतिवत्सदसदवभासनिरपेक्षार्थान्तरप्रतीतिरस्ति। स्यादेतत्। सम्प्रतिपन्ने सत्यात्मनि बाधो नोपलब्धः। असति च विप्रतिपन्ने

लक्षणत्वांशो दूषितः। अंशान्तरस्याभिमतत्वात्स न दूषितः। इदानीं विशिष्टमनिर्वचनीयत्वं प्रकारान्तरेण दूषयितुमारभते—विशेषत इत्यादिना।

1. पुरुषाध्यवसायः—पुरुष इत्यध्यवसायः।

2. अनयोः—सत्त्वासत्त्वयोः।

3. तदवान्तरेति—सदसदवान्तरेत्यर्थः।

4. नीलेत्यादि—नीलपीतप्रतिक्षेपस्थले तु प्रतीतिबलेन श्वेतस्य कस्यचित्सिद्धौ प्रतिक्षेपयोस्तद्रूपत्वसम्भवः। नैवं प्रकृते प्रतीत्या सदसदतिरिक्तसिद्धिः। सत्त्वासत्त्वप्रतीत्यतिरिक्तप्रतीतेः शशशृङ्गायमाणत्वादिति भावः।

5. तत्राप्यर्थापत्त्येति—प्रतीतिबाधान्यथानुपपत्त्येत्यर्थः। सतो बाधानुपपत्तेरसतश्च प्रतीतिबाधोभयानुपपत्तेश्च सदसद्विलक्षणत्वं घटादेरभ्युपेयमित्यर्थः।

घटादिवद्बाधोऽपि[1]नोपलब्धः। तदुभयमपि घटादावनुभूयमानं कथमुभयरूपातिरेकमन्तरेण निरुध्येतेति चेत्, विरोधेऽन्यतररूपबाधेनेतरपरिरक्षणेनाविरोधे चोभयसमर्थनेनेत्युक्तम्। कस्य बाधः कस्य परिरक्षणमिति चेत्, शक्तो विविनक्तु। न हि त्वया न विदितमिति तत्त्वं विनिवर्तते। तस्याप्यशक्यमस्मदुत्थापितैर्बाधकैरिति चेन्न। बाधकानां [2]सदसत्त्वयोरुपपत्तेः असतोऽ(त्य)पि बाधके स्वकार्यं सिद्ध्यतीति चेत्, किमस्यासत्त्वम्? आत्मवैलक्षण्यमिति चेत्, अस्त्वेवम्. आत्मनो बाधकवैलक्षण्यवत्। [3]न हि सतामेव परस्परवैलक्षण्यमन्योन्यमसत्त्वमापादयति। बाध्यमानत्वमिति चेत्, किमयं बाधः कार्यकरं रूपं न व्याहन्ति किमनेन बाध्यते। अथ व्याहन्ति कथमसतोऽपि बाधकस्य, [4]उभयथाऽपि सदसद्विवेकसिद्धिः। समानयोगक्षेमत्वादुभयोः[5]। कथमन्यतरत्र सत्त्वमसत्त्वं वा व्यवस्थाप्यतामिति चेत्, सत्यम्। एवंविधस्वव्याघातकमात्रालोचनेऽव्यवस्थैव। अत एव हेत्वन्तरेणैषामाभासानाभासव्यवस्था। तस्यैव हेत्वन्तरस्य विचाराङ्गत्वम्। [6]सर्वगोचरव्याहतवचसस्तव (स्त्व)तदङ्गत्वं तद्भावाभावयोः प्रयोजनाभावादित्यादि जातिपरीक्षायां न्यायाचार्योक्तमनु-

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1. बाधोऽपीत्यपिना ख्यातिसङ्ग्रहः।

2. सदसत्त्वयोरिति—त्वयदुपन्यस्तस्य बाधकस्य सत्त्वमसत्त्वं वा? आद्ये प्रपञ्चान्तर्गतस्य तस्यैकस्य सत्त्वे तुल्यन्यायेन सर्वस्यापि सत्त्वसिद्धिः, द्वितीये हेतोरसत्त्वे साध्ययोगेन सुतरां प्रपञ्चसत्त्वसिद्धिरित्युभयथाप्यस्माकमुपपत्तिरित्यर्थः।

3. न हीति—कस्यचिद्वस्तुनो वस्त्वन्तरवैलक्षण्यं नासत्त्वरूपं भवितुमर्हति। तथा सत्यात्मनोऽपि बाधकवैलक्षण्यमसत्त्वरूपं स्यादिति भावः।

4. उभयथाऽपीति—बाधकबाधकस्य बाधकगतकार्यकररूपव्याहन्तृत्वे बाधकबाधकस्यार्थक्रियाकारित्वेन सत्त्वसिद्धिः। हेतोर्बाधित्वेन प्रपञ्चसत्त्वसिद्धिश्च। तस्य तदव्याहन्तृत्वे बाधकस्य कार्यकरत्वेन सत्त्वसिद्धिः। बाधकबाधकस्य प्रपञ्चस्य चासत्त्वसिद्धिरित्युभयथापि त्वदभिमतं ब्रह्मभिन्नस्य सर्वस्यासत्त्वं न सिद्ध्यतीत्यर्थः।

5. उभयोः—बाधकबाधकयोः।

6. सर्वेत्यादि—सर्वविषयकं व्याहतञ्च यद्वचः, सर्वं मिथ्या, मदुक्तं सर्वं वाक्यमसत्यमित्यादिरूपं स्वव्याघातकं, तस्य विचाराङ्गत्वं नास्तीति स्वव्याघातकोत्तररूपजातिविचारावसरे न्यायाचार्यैरुक्तमित्यर्थः।

सन्धातव्यम्। व्याघातमात्रस्य क्वचिद्दूषणकक्ष्यासूपन्यासोऽपि नोत्तरस्य दूषणविवक्षया, किन्तु पूर्वस्यादूषणजातीयत्वविवक्षयेति द्रष्टव्यम्।

अथैवं मनुषे, [1]अखिलगोचराणि परमार्था नैव (बाधकानि परमार्थतामेव) बाधन्ते, न तु कार्यं व्यापादयन्ति। धूमादीनां सद्वैलक्षण्ये समर्थितेऽपि भवत्येव धूमध्वजानुमानम्। नैतावता तस्य पारमार्थिकत्वमेवेति मन्तव्यम्। विश्वविनिवर्तकेन निवर्तयिष्यमाणत्वादिति। तदेतदपेशलम्। प्रमाणस्य बाधकस्य व्यवहारविशेषोत्पत्तिप्रतिबन्धकस्य बाध्यव्यवहारमात्र निवर्तकस्य [2]वस्तु(ष्व)व्यापारात्। अभ्युपेत्य वा ब्रूमः उक्तस्य बाधकस्य भविष्यद्बाधकतुल्यप्रमाणत्वेऽमुनैव प्रपञ्चविलयप्रसङ्गात्। अप्रमाणत्वे बाध्यत्वात्। भविष्यतो वा विश्वनिवर्तकस्य प्रमाणमात्रत्वेऽस्यैवानिवर्तकत्वप्रसङ्गात्। प्रामाण्योत्तीर्णरूपान्तरनिवर्तकत्वे प्रपञ्चस्य सत्त्वप्रसङ्गात्। प्रमाणबाधितं रजतादि मिथ्या मुद्गराद्यर्थान्तरबाधितं घटादि सत्यमित्येव हि व्युत्पत्तिः। हेत्वन्तरबाधिते मिथ्येति भाषणमात्रमस्माकमभिमतमिति चेत्, कस्तर्हि भवन्तं वारयेत्। असद्व्यवहारस्य हि तथात्वं ज्ञापयामः, न तु तमेव निवर्तयितुं शक्नुम इति। प्रमाणबाधिते द्विचन्द्रादावनुवृत्तिरपि दृश्यत इति चेत्, उच्यते। बाधकं हि प्रमाणं तदेव निवर्तयति, यदध्यस्तमपि सत्प्रामाणिकाभिमानेन कार्यं करोति, यथा रज्ज्वाद्यधिष्ठानं सर्पादिकं बाष्पाद्यधिष्ठानं धूमादिकं वा। तत्र हि बाधकदर्शनसमनन्तरं न भीतिर्वह्न्यनुमानं वा जायते। पुनस्सर्पविज्ञानानुदयस्तु सामग्रीविच्छेदान्नतु [3]प्रमाणबलात्। एवमत्रापि चन्द्रद्वित्वेन प्रामाणिकाभिमतेन यदि कार्यं किञ्चित्स्यात्तदेव निवर्तनीयम्, न तु चन्द्रद्वित्वज्ञानमपि, तस्यानध्यस्त-

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1. अखिलेत्यादि—विश्वनिवर्तके नभविष्यता ब्रह्मनिर्विशेषत्वज्ञानरूपेण बाधकेनेदानीन्तनस्य मदुत्थापितस्य बाधकस्य बाधो भवत्येव। स च न कार्यकरत्वनिवृत्त्यात्मकः, अपि तु पारमार्थ्याभावात्मकः। तथैव हि धूमादिविषयेऽभ्युपगन्तव्यमित्यर्थः।

2. वस्तुषु व्यापारादिति क्वचित्पाठः। वस्तुष्वव्यापारादिति पाठे ज्ञानस्य वस्तुबाधा बाधविषयेऽव्याप्तेरित्यर्थो बोध्यः।

3. प्रमाणबलादिति—बाधकप्रमाणबलादित्यर्थः।

कारणत्वात्। यत्र च वस्तुनि ज्ञायमानतया कारणत्वं तत्रैव बाधकप्रमाणाधीनविनिवृत्ति शङ्कावकाशः, न तु सत्तया कारणे। विश्वञ्च न ज्ञायमानतया स्वकार्ये वर्तते। कथमस्य प्रमाणेन विलयश्शङ्क्येत। अपि च यद्येनाकारेणार्थक्रियां किञ्चिदुत्पादयितुं शक्नोति, तत्ते-नाकारेण सत्, यन्न शक्नोति तन्न सत् इत्येवं हि लोकव्यवहारसिद्धं सदसत्त्वम्। तत्र यदि सत्त्वं व्यावर्तयति, कथं कार्यं न व्याहन्यात्?। अथैतदुत्तीर्णं सत्त्वं व्यावर्तयति वय-मपि तदभ्युपगच्छामः। न हि लोकव्यवहारसिद्धे सत्त्वे व्यवस्थितेऽन्यदपि सत्त्वमभिल-षामः। न च तदस्ति, क्वचिदपि तस्याप्रतीतेः। लौकिकं सत् (सत्त्वं) कदाचिद्विनि-वर्तयिष्यत इति चेत्, तत्रेदं वक्तव्यम्। केयं विनिवृत्तिरिति। यदि लौकिकसत्त्वस्य पूर्वमपि निवृत्तिरासीदिति प्रतीतिस्तदा तदानीन्तनकार्यकरणव्याघातः। यथा रज्जुसर्पस्य प्रागेवा सत्त्वोदितस्य (प्रागेवासत्त्वेन तस्य) प्राक्कार्यालाभः। सत्यमिदानीमपि परमार्थतो न किञ्चित्कार्यं करोतीति चेत्, परमार्थत इति कोऽर्थः। न तावल्लौकिकपरमार्थत्वम्। अभ्युपगमविरोधात्। भवद्भिरपि हि व्यावहारिकपरमार्थकार्यकरणमभ्युपगम्यत एव। न तदुत्तीर्णम्। अनपेक्षणात्। न हि लौकिकसत्त्वनिर्वाहायालौकिकपरमार्थकार्यकरणमभ्यु-पगम्यते। तत्प्रयुक्ततया लौकिकसत्त्वस्य क्वचिदप्यदृष्टेः। तस्मान्न तस्य पूर्वनिवृत्तिस्तदानीं ज्ञास्यते। अलौकिकसत्त्वस्य गगनकुसुमकल्पस्य निवृत्तिस्सर्वदैवेष्टेति किं तत्समर्थनप्रया-सेन?। अथ लौकिकसत्त्वस्य पश्चान्निवृत्तिः, तर्ह्येतदुक्तं भवति, विश्वं कदाचिद्विलयमुप-यास्यतीति। हन्तैवमनित्यतैवोपपादिता स्यान्नासत्यतेति। तत्रापि को विप्रतिपद्यते?। न च सर्वस्यानित्यत्वमपि। प्रकृतिपुरुषकालादीनान्नित्यत्वश्रुतेः। त्वदुपन्यस्तबाधकसमानयो-गक्षेमतया च पाश्चात्यमपि बाधकं न विलयक्लृप्त्यै प्रभवतीत्युक्तम्।

प्रत्यक्षमधिष्ठानयाथात्म्यज्ञानं प्रत्यक्षारोपनिवर्तनक्षमं नेतरदिति च भ्रान्तभाषितमेव। भ्रान्त्युत्पत्तिनिवृत्तिः स्वसामग्रीनिवृत्त्यैव, न प्रमाणफलेन विषयपरिच्छेदेनेति स्थितत्वात्। इतरथा हि चन्द्रैकत्वापरोक्ष्यानन्तरं अङ्गुल्यवष्टब्धचक्षुषः चन्द्रद्वित्वन्न प्रतीयेत। प्रामाण्य-मेव हि भ्रमस्य तत्त्वज्ञानबलान्नास्तीति ज्ञाप्यते। तच्चेदानीमपि शक्येत। यदि (यद्यपि) विश्वज्ञानं प्रमाणं स्यादित्यपि (स्यात्तथापि) स्वाप्नप्रपञ्चविलक्षणो जाग्रत्प्रपञ्च इत्य-

शक्यन्निष्क्रष्टुम्। स्वप्नेऽपि हि तत्तदर्थक्रियापरम्परा समर्थवस्तुमालानुभवदर्शनादिति चेत्, न तावदेतच्छ्रुतिपरायणेष्वस्मासु वक्तुमुचितम्। स्वाप्नप्रपञ्चस्यापि पारमार्थिकत्वस्य वेदान्तवाक्यप्रमाणकत्वात्। तथा च सूत्रकारैरेव सन्ध्ये सृष्टिराह हीत्युपपादितम्। अन्येषां तु पक्षे

स्वा(स्व)प्ने ज्ञाने न तत्कार्यमर्थेन कृतमन्यदा।
यदि जाग्रद्धियान्नार्थास्स्वाप्नज्ञानञ्च नो भवेत्॥

तत्तदर्थानुभवजनितसंस्काराणामदृष्टोद्बोधितानां साचिव्यान्मनसा तेषु ज्ञानेषु निरन्तरमुपजायमानेषु स्वप्ने यन्नाम हर्षशोकादिकार्यमुपजायते तत्सर्वं ज्ञानेनैव। न च तदानीन्तनं ज्ञानमपि नासीदिति कस्यचित्किमपि बाधकमुदेति। अबाधितमपि मिथ्येति भवतामेव वक्तुमुचितम्। विषयबाधान्मिथ्येति चेत्, किमन्यबाधेऽन्यस्य मिथ्यात्वम्?। अतिप्रसङ्गो हि दुर्वारः। न चात्यन्तविषयबाधोऽपि, येन देशान्तरेष्वपि तदभावात् ज्ञानस्य निरालम्बनत्वं स्यात्। अतो ज्ञानमेव स्वप्ने परमार्थो नार्थ इति सिद्धे यदर्थानामेव केषाञ्चित्तदानीमपि हेतुसाध्यभावावलोकनं तन्निपुणतरनिरन्तरावर्तितमनोरथविपरिवर्तिहेतुसाध्यभाववदित्यूहनीयम्। इदञ्च जागरितावस्थानुसंहितपरमार्थपदार्थहेतुसाध्यभावानुभवबलप्रभावितमिति तदेव [1]स्थिरीकरोति। न ह्यविदितगोचरस्स्वप्नो मनोरथो वा सम्पद्यते। तत्राख्यातिपक्षे निरन्तरास्स्मृतयः। अन्यथाख्यातिपक्षे स्मर्यमाणारोप इति विशेषः। अदृष्टवशोद्बोधितसंस्कारसम्पत्त्या विसदृशसमारोपे च अधिकरणसम्पत्तिर्यथासम्भवमूहनीयेति। न चैवं जाग्रज्ज्ञानमपि निर्वोढुं शक्यम्। स्वरूपसत्तामात्रनिबन्धनस्यानादिकार्यकारणप्रवाहस्याशेषजनसंवादेनानुवर्तमानस्यानन्यथासिद्धत्वात्। अतः कथं स्वप्नज्ञानदृष्टान्तबलेन बाह्यापलापः। यदि च कदाचिद्बाधकमुपयास्यति, कथमिदानीं कार्यमुत्पादयेत्।

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1. जाग्रद्दशायामेव कदाचिन्मनसा हेतुसाध्यभावमननवत्स्वप्नदशायामपि भवतीति भावः। तथा च स्वाप्नो हेतुसाध्यभावानुभवः जाग्रद्दशायां हेतुसाध्यभावानुभवप्रयोज्यसंस्कारायत्त इति स जागरितावस्थायां तादृशानुभयपारमार्थ्यं दृढयतीत्यर्थः।

न च बाधासत्तिविप्रकर्षाभ्यामर्थविशेषसिद्धिः। बाधविप्रकर्षेण कस्यचित्परमार्थोऽपि किञ्चित्प्रति बाध्यमानत्वादपरमार्थस्स्यात्।

यत्तु शशविषाणाद्यसदिति। तत्र शशो विषाणं संसर्गश्च सन्त्येव। तान्येव च प्रकाशन्त इति पूर्वमेवोक्तम्। अथ शशाधिकरणाभावप्रतियोगिनो विषाणस्य तत्रैव प्रतीयमानस्य तत्रत्याभावप्रतियोगितैवासत्त्वमिति मनुषे, हन्तैवमस्मादसतो व्यावृत्तिर्घटादीनां सत्त्वमेव स्थापयतीति न सतोऽपि व्यावृत्तिस्स्यात्। बाधा[1]त्सापीति चेत्, [2]तर्ह्यसतो व्यावृत्तिर्न स्यात्। न हि क्वचित्कदाचित्कस्यचिदपि वा बाधप्रस्तावे सति उक्तरूपादसतो व्यावृत्तिः। न च भानमात्रादसद्व्यावृत्तिरिति वाच्यम्। असतोऽपि भाने ततो व्यावृत्त्यनुपपत्तेः। भानेऽपि व्यवहारे प्रवृत्त्यर्हतानर्हताभ्यां विशेष इति चेत्, व्यवहारश्च यदि जातो न बाधितश्च कथमस्य बाधो सत्ये (बाधोऽस्त्ये) वेत्युक्तम्। यदि च नित्यतया प्रमाणेन प्रतिपन्नानां नित्यमेव व्यवहारो जायेत, कथं विश्वनिवृत्तिः। यदि न जायेत कथं व्यवहाराबाधः। व्यवहारबाधे वा नासद्व्यावृत्तिः। [3]सामान्यतश्च बाध्यसिद्धौ न विश्वबाधः। तदसिद्धौ च कार्य (कथं) बाधः। बाधो हि तस्याभावावेदनम्। न चाभावो भावमन्तरेण निरूपयितुं शक्यः। विश्वं मिथ्येत्यादौ [4]प्रतिज्ञाविरोधश्च। उपजीव्यविरोधोऽपि। साध्यविधानस्य [5]धर्म्याद्युपजीविनस्तद्विरोधित्वात्।

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1. सापीति—सद्व्यावृत्तिरपीत्यर्थः।

2. तर्हीति—सद्व्यावृत्तेरसत्स्वरूपतया सत्त्वविरुद्धासद्व्यावृत्तिर्न सम्भवतीत्यर्थः।

3. बाध्यत्वेनाभिमतो प्रतीतिरूपः प्रपञ्चः सामान्यतः केनचित्प्रमाणेन सिद्धो न वा, सिद्धश्चेन्न तस्य बाधसम्भवः। असिद्धश्चेत्प्रतियोग्यप्रसिद्ध्या न तस्याभावात्मको बाधस्सुवच इति सिद्ध्यसिद्धिभ्यां व्याघातमाह—सामान्यत इत्यादिना।

4. प्रतिज्ञाविरोध इति—विश्वं मिथ्या दृश्यात्वादित्यनुमाने विश्वपदार्थस्य केनचित्प्रमाणेन सिद्धौ मिथ्यात्वासम्भवेन विरोधः। असिद्धौ निरालम्बनसाध्यधर्मोक्तिरिति विरोध इत्यर्थः।

5. धर्म्याद्युपजीविन इति—पक्षहेतूपजीविन इत्यर्थः। तथा च मिथ्यात्वस्य साध्यत्वे तदुपजीव्ययोः पक्षहेत्वोः विनाशोऽवश्यम्भावीति भावः।

ननु च यद्यथा प्रतीयते तत्सर्वमविद्यावशात्तथा भ्रान्त्या अवसीयत इति शङ्कायां किमुत्तरम् ?। यच्चोत्तरं दीयते, तदप्यविद्यान्तर्गतमित्येवं शङ्क्यते । अनाविद्यत्वे सत्युत्तरं सिद्ध्येत्। उत्तरेण (न) कस्यचिदप्यनाविद्यत्वमिति चेत् ; किमयमहो महानुभावः यश्शङ्कां सुमहतीमकस्मादेवोत्पादयति। यस्य तु शङ्का कारणेनोत्पद्यते तस्य तदुच्छेदौपयिकतया पूर्वोक्तहेतुराशिरनुसन्धेय इति कृतमतिविस्तरेण। अतस्सिद्धमनिर्वचनीयख्यातिपक्षोऽत्यन्तं तुच्छ इति सर्वं विज्ञानजातं यथार्थमेवेति सुन्दरम् ॥

इति श्रीभगवद्रामानुजमुनिवरमतधुरन्धरस्यात्रिगोत्रप्रदीपश्रीपद्मनाभार्यनन्दनस्य
वादिहंसनवाम्बुदस्य श्रीमद्रामानुजाचार्यस्य कृतौ
न्यायकुलिशे ख्यातिनिरूपण-
वादस्तृतीयः.

॥ श्रीगुरुभ्यो नमः ॥

॥ लक्षणाविमर्शः ॥

[प्रथमो भागः]

। वे. सुब्रह्मण्यशास्त्री ।

। अण्णामलैविश्वविद्यालयः ।

साक्षी मुकुन्दकेळीनां यमुनायामयं व्रजः, गङ्गायां घोषः इत्यादयः प्रयोगा लाक्षणिका इत्यविवादम् । विवदन्ते च लक्षणायां तान्त्रिकाः । तदत्र स्वमतिशुद्धये तान्त्रिकाणां पक्षभेदा निरूप्यन्ते ।

(१) नव्यवैयाकरणाः, आरोपितशक्यतावच्छेदकरूपेण शक्त्यैव तत्पदवाच्यत्वेन प्रसिद्धान्यव्यक्तिबोधे व्यक्तिविशेषबोधे वा लक्षणेति व्यवहारः । छत्रिणो यान्तीत्यादौ अच्छत्रिषु साहचर्याच्छत्रित्वारोपः । काकेभ्यो दधि रक्ष्यतामित्यत्र दध्युपघातकमात्रे काकत्वारोपः । कमलानि कमलानीत्यादौ कमलत्वेनैव व्यक्तिविशेषबोधः । गङ्गायां घोष इत्यत्र शक्यतावच्छेदकगङ्गात्वेन तीरबोधः । युज्यते चैतत् । कथमन्यथा गङ्गायां मीनघोषौ स्त इत्यत्र द्वन्द्वस्य साधुता । तथाहि देवदत्ते अजधनत्वस्य यज्ञदत्ते अविधनत्वस्य चान्वयतात्पर्येण अजाविधनौ देवदत्तयज्ञदत्तौ इति प्रयोगो न प्रामाणिकः । एवं नीधात्वर्थक्रियासंयोगयोः क्रमेण अजाग्रामयोरन्वयतात्पर्येण अजाग्रामौ नयति इति प्रयोगोऽपि न प्रामाणिकः । अनयोश्च प्रयोगयोः प्रामाण्यवारणाय द्वन्द्वार्थस्य एकधर्मावच्छिन्नान्वय एव द्वन्द्वः साधुरिति नियमः स्वीकरणीयः । तथासति निरुक्तस्थले एकधर्मावच्छिन्नान्वयविरहाद्द्वन्द्वस्यासाधुता । एवञ्च गङ्गायां मीनघोषौ स्त इत्यत्र

मञ्जूषाकृतः नागेशभट्टाः

गङ्गाशब्दाल्लक्षणया तीरत्वेन तीरबोधे मीनस्य गङ्गात्वावच्छिन्नेन घोषस्य तीरत्वावच्छिन्नेन च अन्वयात् द्वन्द्वार्थस्य एकधर्मावच्छिन्नेनान्वयाभावात् द्वन्द्वस्यासाधुता स्यात्। गङ्गात्वेनैव तीरस्यापि बोधे तु उभयोरपि गङ्गात्वरूपैकधर्मावच्छिन्नान्वयात्समाससाधुता निर्वहति। न च लक्ष्यस्यापि शक्यतावच्छेदकरूपेणैव बोधस्वीकारे 'शक्यादन्येन रूपेण ज्ञाते भवति लक्षणा' इत्यभियुक्तोक्तिविरोध इति वाच्यम्। तादृशोक्तेः प्रामादिकत्वात्। प्रामाणिकत्वाभिनिवेशे शक्यादन्येन रूपेण ज्ञाते शक्यतावच्छेदकभिन्नरूपवत्त्वेन गृहीते तीरत्वविशिष्टे तीरादौ लक्षणा शक्यतावच्छेदकारोपः इति तदर्थात्। महाभाष्यकारोऽपीदृशं बोधमनुमन्यते। पुंयोगादाख्यायामिति सूत्रे भाष्ये "चतुर्भिः प्रकारैः अतस्मिन्स इत्येतद्भवति तात्स्थ्यात् ताद्धर्म्यात् तत्सामीप्यात् तत्साहचर्यात् मञ्चा हसन्ति सिंहो माणवकः गङ्गायां घोषः यष्टीः प्रवेशय इत्युक्तेः। कैयटोप्याह स्पष्टमेवारोपम् आरोप्यते ताद्रूप्यम् न तु मुख्यम् बालेषु मञ्चत्वारोपान्मञ्चपदप्रवृत्तिः हसन्तीति पदान्तरप्रयोगाद्विज्ञायते इति।

न्यायसूत्रकारोऽपि सहचरणस्थानतादर्थ्यवृत्तमानधारणसामीप्ययोगसाधनाधिपत्येभ्यो ब्राह्मणबालकटराजसक्तुचन्दनगङ्गाशकटान्नपुरुषेष्वतद्भावेऽपि तदुपचारः इति सूत्रयामास। तस्य भावः तद्धर्मः तदभावेऽपि तदुपचारः तच्छब्दव्यवहार इत्यर्थः। स च तद्धर्मारोपेण। आरोपनिमित्तानि च सहचरणादीनि। यष्टीः प्रवेशयेत्यादीनि उदाहरणानि। यष्टित्वारोपो ब्राह्मणे साहचर्यात्। मञ्चत्वारोपो बालेषु तात्स्थ्यात्। गङ्गायां तीरधर्माधारत्वारोपः तत्सामीप्यादित्यादि तद्व्याख्यातारो वदन्ति। एवञ्च शक्यार्थप्रवाहेणात्यन्तसामीप्ये गङ्गायां तीरधर्मं घोषाधारत्वमारोप्य गङ्गायां घोषः इति प्रयोगः। व्यवहितसामीप्ये तु तीरे गङ्गात्वमारोप्य गङ्गायां घोषः इति प्रयोगः। गौतमसम्मतोऽप्यारोपः पतञ्जलिसम्मतः। स्वरितेनाधिकारः इति सूत्रे भाष्ये तथाविधस्याप्यारोपस्य कथनात्। न्यायवार्तिककारोऽपि "यष्टिकायां तावदयं यष्टिकाशब्दो यष्टिकात्वजातिनिमित्तकः तत्र संयुक्तसमवेतां जातिं ब्राह्मणे समवायेनाध्यारोप्य ब्राह्मणं यष्टिकेत्याह" इति सहचरणसूत्रव्याख्यानावसरे निरूपयन् शक्यतावच्छेदकरूपेण लक्ष्यार्थबोधमङ्गीकरोति।

न च गङ्गायां घोषः इत्यादौ आरोपितगङ्गात्वेन तीरस्य बोधेऽपि तस्य ज्ञानस्य भ्रमत्वात् शास्त्रज्ञानवतां सर्वथा भ्रमत्वेन ग्रहाच्च ततो बोधात् गङ्गागतशैत्यपावनत्वादिप्रतीतिरूपं फलं नसिद्ध्येदितिवाच्यम् । गङ्गायां घोषः इति वाक्यात्प्रथमं प्रवाहवृत्तिर्घोषः इति शाब्दबोधो जायते। ततः तत्र अनुपपत्तिप्रतिसन्धानम् ततः तादृशबोधे वक्तृतात्पर्याविषयत्वज्ञानम् ततश्च गङ्गात्वेन लक्ष्यतीरशाब्दबोधः। ततो व्यञ्जनया तीरे मुख्यगङ्गाभेदप्रतीतिः। तया चोक्तप्रयोजनं सिद्ध्यति। बाधग्रहश्च व्यञ्जनाजन्यबोधे अप्रामाण्यज्ञानं न जनयति। वस्तुतस्तु बाधग्रहः शाब्दे अनुपपत्तिमूलकारोपितार्थबोधे अप्रामाण्यज्ञानं न जनयति इति स्वीक्रियते। तथा च मध्ये गङ्गाभेदप्रतीतेरनङ्गीकारेऽपि न क्षतिः। एवं सति लक्ष्यार्थबोधे अप्रामाण्यज्ञानानुदयात् ततः पूर्वोक्तप्रयोजनं सिद्ध्यति।

सा लक्षणा द्विविधा गौणी शुद्धा चेति। स्वसादृश्याधिकरणत्वसंबन्धेन शक्यसंबन्ध्यर्थप्रतिपादिका गौणी। सादृश्यभिन्नसंबन्धेन शक्यसंबन्ध्यर्थप्रतिपादिका शुद्धा। गौर्बाहीक इति गौणीस्थलेऽपि बाहीकस्य शक्यतावच्छेदकगोत्वेनैव बोधः। न च तत्र जाड्यादिगुणानां लक्ष्यतानवच्छेदकत्वे 'लक्ष्यमाणगुणैर्योगाद्वृत्तेरिष्टा तु गौणता' इत्यभियुक्तोक्तिविरोध इति वाच्यम्। लक्ष्यमाणेत्यस्य बाहीके गोशब्दप्रयोगहेतुज्ञानविषयोऽर्थः। गुणैरित्यत्र तृतीयार्थः अभेदः योगशब्दार्थसम्बन्धान्वयो। बाहीके गोवृत्तियद्गुणज्ञानात् गोशब्दप्रयोगः तादृशगुणरूपात्संबन्धात् वृत्तेः गौणता इत्येवंपरत्वात्तदुक्तेः। गौणीस्थलएव परंपरासंबन्धस्य लक्षणानियामकत्वं न शुद्धायाम्। शैत्यपावनत्वादौ गङ्गापदशक्यप्रवाहनिरूपितपरंपरासंबन्धस्य सत्त्वेऽपि "प्रयोजनं न लक्ष्यं संबन्धाभावात्" इति काव्यप्रकाशोक्तेः। अत एव द्विरेफपदात् स्ववाच्यरेफद्वयवद्भ्रमरपदवाच्यत्वरूपपरंपरासंबन्धेन लक्षणया भ्रमरबोध इत्यसंगतम्। गौण्यतिरिक्तस्थले परंपरासंबन्धस्य लक्षणानियामकत्वाभावात्। अपि तु द्विरेफपदस्य भ्रमरे रूढिशक्तिरेव। त्वचा ज्ञातमित्यत्र त्वक्पदस्य चर्मणि शक्तस्य त्वगिन्द्रिये निरूढलक्षणा। निरूढलक्षणाव्यतिरिक्ता सर्वापि लक्षणा प्रयोजनवती। अत एव रूढिप्रयोजनान्यतरस्य लक्षणानियामकत्वमुक्तं तत्र तत्र।

इयं लक्षणा प्रकारान्तरेण द्विविधा जहत्स्वार्था अजहत्स्वार्था चेति। न च सर्वत्र लक्ष्यार्थबोधे स्वार्थस्य शक्यतावच्छेदकस्य प्रकारतया भानात् लक्षणाया जहत्स्वार्थत्वादि-विभागो न संभवतीति वाच्यम्। यत्र शक्यार्थस्य धर्मिणः केनापि रूपेण लक्ष्यार्थान्वयिना अनन्वयः तत्र जहत्स्वार्थलक्षणा गङ्गायां घोषः इत्यादौ। शक्यार्थस्य येन केनापि रूपेण लक्ष्यार्थान्वयिना अन्वये अजहत्स्वार्था काकेभ्यो दधि रक्ष्यतां, छत्रिणो यान्तीत्यादौ इति वदन्ति ॥

अथैतन्मते लक्षणावृत्तेः स्वरूपं विचार्यते। बोधे लक्षणाव्यवहार इत्युक्तेः न बोधस्य लक्षणात्वम्। शाब्दबोधौपयिकवृत्तेरेव लक्षणात्वात्। तस्मात् बोधे सति लक्षणा-व्यवहार इति तदुक्तिर्व्याख्येया। शक्यतावच्छेदकारोपो लक्षणेति वैयाकरणाः इति ग्रन्थान्तरदर्शनात्, इहापि अन्नं प्राणाः, चन्दनं तुला इत्यादौ आहार्यारोपस्यैव लक्षणा-त्वादित्युक्तेः, शक्यादन्येन रूपेण ज्ञाते भवति लक्षणा इति श्लोकघटकलक्षणापदस्य शक्यतावच्छेदकारोपार्थकतया व्याख्यानात्, आरोप्य प्रयोग इत्युक्तेश्च शाब्दबोधसमाना-कारः शब्दप्रयोगहेतुः वक्तृनिष्ठः तीरे गङ्गात्वारोपः गङ्गापदस्य तीरे लक्षणेति प्रति भाति। (१) परन्तु शक्यतावच्छेदकारोपाख्यविलक्षणवृत्तिस्वीकारे सर्वेषां शब्दानां सर्वार्थवाचकत्वस्वीकारो व्याहन्येता न चैतत्पक्षे सर्वेषां सर्वार्थवाचकत्वं नास्तीति शङ्क्यम्। परेत्वित्यादिना लक्षणास्वरूपनिरूपणोपक्रमे शक्त्यैव बोधे लक्षणाव्यवहारः इत्युक्तेः, उपसंहारे हरिरप्याह

"एकमाहुरनेकार्थं शब्दमन्ये परीक्षकाः।
निमित्तभेदादेकस्य सार्वार्थ्यं तस्य भिद्यते ॥
सर्वशक्तेस्तु तस्यैव शब्दस्यानेकधर्मणः।
प्रसिद्धिभेदाद्गौणत्वं मुख्यत्वञ्चोपचर्यते ॥" इति

इत्यभिधानाच्च सर्वेषां सर्वार्थवाचकत्वस्याङ्गीकृतत्वात्। एवञ्च लक्षणाख्यवृत्त्यन्तरस्वी-कारो व्यर्थः।

(२) किञ्च "अन्वयानुपपत्तिज्ञानपूर्वकं शक्यत्वेन गृहीतार्थसंबन्धज्ञानेन उद्बुद्ध-शक्तिसंस्कारतो बोधे लक्षणेति व्यवहारः" इति मञ्जूषाग्रन्थं बोधे इति प्रतीकमुपादाय 'तस्मिन्सति तज्जनकतादृशसंस्कारे तच्छक्तौ वा लक्षणेति व्यवहार इत्यर्थः, इति व्याचख्युः वैद्यनाथभट्टाः। अतो ज्ञायते अप्रसिद्धार्थे शक्तिरेव लक्षणेति। न च निरुक्तग्रन्थः परेतुकल्पात्प्राक्तनः न तत्कल्पतात्पर्यनिर्णायक इति वाच्यम्। पूर्वकल्पात् परेतुकल्पे लक्ष्यार्थे शक्यतावच्छेदकारोपस्यैव विशेषत्वात्। अत्रापि कल्पे तीरे शक्तेः कण्ठरवेणैवाभिधानात्।

(३) परेतुकल्पेऽपि शक्त्यैवेति ग्रन्थव्याख्याने "एवेन तस्या अतिरिक्तत्वनिरास इति भावः" इति टीकोक्तेश्च स्पष्टं ज्ञायते शक्त्यतिरिक्ता न लक्षणेति।

(४) अपि च इयं लक्षणेत्यनभिधाय अप्रसिद्धार्थबोधे व्यक्तिविशेषबोधे वा लक्षणेति व्यवहारः इत्यभिधानेनैव अतिरिक्ता लक्षणा नास्तीति गम्यते।

(५) वैयाकरणमते सर्वेषां शब्दानां सर्वार्थवाचकत्वात् तान्त्रिकाणां लक्षणा-व्यवहारः कथमुपपद्यते इति शङ्कानिरासाय लक्षणाग्रन्थावतारश्चैतमर्थमुपोद्बलयति।

(६) किञ्च व्यक्तिविशेषबोधे वा लक्षणेति व्यवहार इति निरूपयता ग्रन्थकृता कमलानि कमलानि इत्यत्र कमलपदस्य सौरभविशिष्टकमलव्यक्तिविशेषे लक्षणा स्वीकृता। नच तत्र शक्यतावच्छेदकस्य कमलत्वस्य कमलव्यक्तिविशेषे आरोपः संभवति समवायेन तस्य तत्र सत्त्वात्। न च तत्रापि कमलत्वे व्यक्तिविशेषमात्रवृत्तित्वमारोप्यैव कमलानि कमलानि इति प्रयोग इति वाच्यम्। निरुक्तारोपः कमलत्वे व्यक्तिविशेषभिन्नकमला-वृत्तित्वस्यारोपे पर्यवसितः। शक्यतावच्छेदकविशेष्यकस्यापि तस्य न शक्यतावच्छेद-कारोपत्वम्। शक्यतावच्छेदकप्रकारकारोपस्यैव शक्यतावच्छेदकारोपशब्देन व्यवहारात्। एवञ्च निरुक्तस्थले शक्यतावच्छेदकारोपासंभवात् लक्षणाव्यवहारो न स्यात्। तस्मात् शक्तिविशेष एव लक्षणाव्यवहारविषयः।

एवञ्च लक्षणास्थले शाब्दबोधः शक्यतावच्छेदकरूपेण लक्ष्यार्थविषयकः। प्रयोक्तुरपि तत्समानविषयकः प्रयोगहेतुभूतः शक्यतावच्छेदकारोपः इत्याशयेन शक्यता-

वच्छेदकारोपो लक्षणेति ग्रन्थान्तरव्यवहार उपपद्यते। एवं तात्पर्येण लक्षणानिरूपकवाक्यात् पूर्वोक्तार्थावगतौ सत्यां, शक्यादन्येन रूपेण ज्ञाते भवति लक्षणा इति श्लोकघटकलक्षणापदस्य शक्यतावच्छेदकारोपार्थकतया व्याख्यानात् आरोपस्य लक्षणावृत्तित्वकथनं न युज्यते। तत्र लक्षणापदाल्लक्षणया तादृशारोपस्य लाभसंभवात्। न च लक्षणास्थले सर्वत्र शाब्दबोधः न शक्यतावच्छेदकारोपात्मकः कमलानि कमलानीत्यत्र तदसंभवादिति वाच्यम्। तत्रारोपस्यानावश्यकत्वात्। न च तथा सति आरोपितशक्यतावच्छेदकरूपेण बोधे लक्षणाव्यवहारः इति ग्रन्थसंगतिरिरिति वाच्यम्। आरोपितशक्यतावच्छेदकरूपेण शक्त्यैव तत्पदवाच्यत्वेन प्रसिद्धान्यव्यक्तिबोधे, शक्त्यैव व्यक्तिविशेषबोधे वा लक्षणाव्यवहारः इति योजना। न तु व्यक्तिविशेषेत्यत्रापि आरोपितेत्यादितृतीयान्तस्यान्वयः। तथाच शक्यत्वेन प्रसिद्धान्यव्यक्तिबोधौपयिका शक्तिः व्यक्तिविशेषबोधौपयिका च शक्तिः लक्षणापदेन व्यवह्रियत इति भावः। नच गङ्गापदस्यापि तीरवाचकत्वे तीरत्वस्यापि गङ्गात्ववदेव शक्यतावच्छेदकत्वात् गङ्गात्वमात्रस्य शक्यतावच्छेदकत्वकथनं न संगच्छते इति वाच्यम्। आरोपितशक्यतावच्छेदकरूपेणेत्यस्य आरोपितं यत् शक्यतावच्छेदकत्वेन प्रसिद्धं रूपं तेनेति व्याख्याने दोषाभावात्। तथा च अप्रसिद्धार्थबोधौपयिकशक्तेरेव लक्षणापदेन व्यवहृतायाः शक्यतावच्छेदकारोपमूलशक्यसंबन्धभेदात् गौणीत्वादिना विभागः कृत इति बोध्यम्।

अत्रेदं विचार्यते गङ्गायां घोषः इति वाक्यात् किं आरोपितगङ्गात्वेन तीरशाब्दबोधः, उत गङ्गात्वेनेति। आरोपितशक्यतावच्छेदकरूपेण शक्यत्वेन प्रसिद्धान्यव्यक्तिबोधे इति, न चैवमारोपितगङ्गात्वेन बोधे इति च ग्रन्थपर्यालोचने आरोपितगङ्गात्वेन तीरबोध इति भाति। परन्तु शक्त्या बोधविशेषे लक्षणाव्यवहार इत्युपक्रान्तम्। आरोपितत्वविशिष्टं च गङ्गात्वं न गङ्गापदशक्यतावच्छेदकमिति तेन रूपेण शक्त्या बोधो न संभवति। आरोपितत्वबोधकञ्च पदं नास्ति येन गङ्गात्वे आरोपितत्वस्य बोधो भवेत्। न च आरोपितत्वबोधकपदाभावेन आरोपितत्वस्य प्रकारतया भानासंभवेऽपि तीरे गङ्गात्वसंसर्गतया तस्य भानं संभवतीति वाच्यम्। समवायातिरिक्तसंबन्धेन जातेः स्वरूपतः

प्रकारतया भानासंभवात्। नच प्रकारितांशे निरूपितत्वसंबन्धेन स्वरूपतो गोत्वावगाहिनः अनुव्यवसायस्यानुरोधात् समवायातिरिक्तनिरूपितत्वसंबन्धेनापि स्वरूपतो भानवत् लाक्षणिकस्थलीयानुभवानुरोधात् आरोपसंबन्धेनापि गङ्गात्वस्य (जातेः) स्वरूपतो भानं संभवतीति वाच्यम्। समवायसंसर्गकगङ्गात्वप्रकारकशाब्दबोधस्यैव गङ्गापदशक्तिज्ञानप्रयोज्यत्वेन आरोपसंसर्गकगङ्गात्वप्रकारकबोधस्य शक्तिप्रयोज्यत्वाभावेन शक्त्यैव बोधे लक्षणाव्यवहारः इति ग्रन्थासंगतेः। तादृशबोधस्य भ्रमत्वानापत्तिश्च तीरे समवायेन गङ्गात्वस्यासत्त्वेऽपि आरोपसंबन्धेन सत्त्वात्। न चेष्टापत्तिः, लक्ष्यार्थबोधे भ्रमत्वज्ञानानुदयप्रयोजककथनस्यासंगतत्वापत्तेः। तस्मात् समवायसंबन्धेनैव गङ्गात्वं तीरे भासते। एवञ्च तस्य बोधस्य शक्तिप्रयोज्यत्वं भ्रमत्वञ्चोपपद्यते। स्वमतोपष्टम्भकतयोपन्यस्तः "समवायेन यष्टिकात्वमारोप्य ब्राह्मणं यष्टिकेत्याह" इति न्यायवार्तिकग्रन्थोऽप्येतमर्थमुपोद्बलयति। एवञ्च गङ्गात्वे आरोपविषयत्वसत्त्वात् वास्तवारोपितत्वाभिप्रायकः आरोपितगङ्गात्वेनेति ग्रन्थः। अत एव अग्रे कमलत्वेन व्यक्तिविशेषबोधः, कचतस्त्रस्यति वदनमित्यत्र कचत्वेन राहुत्वविशिष्टबोधः भावप्रधाननिर्देशस्थले घटत्वप्रकारकघटत्वबोधो लक्षणया इत्यादिग्रन्थः संगच्छते।

न च तीरत्वेनोपस्थिते शक्यसंबन्धज्ञानमावश्यकं तवापि। एवञ्च नियतोपस्थितस्य तीरत्वस्याभाने किं नियामकमिति वाच्यम्। लक्षणास्वभावस्यैव नियामकत्वात्। न च विशेषदर्शिनः पुंसः गङ्गायां घोषः इति वाक्यात् गङ्गात्वेन तीरावगाही आहार्यशाब्दबोधो वाच्यः। स च न संभवति आहार्यपरोक्षाप्रसिद्धेरिति वाच्यम्। आहार्यं परोक्षज्ञानं नास्तीत्यस्य नैयायिकवासनाविजृम्भितत्वात्। अनुभवानुरोधेन आहार्यशाब्दबोधस्याङ्गीकारात्।

ननु गङ्गायां घोषः इत्यत्र गङ्गापदार्थे प्रवाहे तीरधर्मस्य घोषाधारत्वस्यारोपः स्वीकृतः। तत्र पक्षे किंपदशक्यतावच्छेदकस्य कुत्रारोपः। न तावत्तत्र गङ्गापदशक्यतावच्छेदकस्य गङ्गात्वस्यारोपः गङ्गात्वेन प्रवाहस्यैव तत्र भानात्। न च घोषान्वितसप्तम्यर्थाधारत्वस्य प्रवाहे आरोप इति वाच्यम्। घोषान्विताधारत्वस्य किंचित्पद-

शक्यतानवच्छेदकत्वात् । न च गङ्गानिष्ठाधारतायां घोषाधारतात्वस्य सप्तमीशक्यतावच्छेदकस्यारोप इति वाच्यम् । घोषाधारतात्वेन आधारतायाः सप्तम्यवाच्यत्वेन तादृशाधारतात्वस्य सप्तमीशक्यतानवच्छेदकत्वात् शक्यतावच्छेदकारोपासंभवात् इति चेन्न । यत्र यत्र लक्षणाव्यवहारः प्रामाणिकः तत्र सर्वत्र यथाकथञ्चिदारोपो वर्तते इत्यत्रैव ग्रन्थकारतात्पर्योपगमात् ।

न च आयुर्घृतमिति वेदवाक्यात् आयुष्ट्वेन घृतविषयकः शब्दबोधो वक्तव्यः । तथा च वेदकर्तुरीश्वरस्य तादृशबोधसमानाकारारोपः आवश्यक इतीश्वरस्य भ्रमवत्त्वापत्तिरिति वाच्यम् । तन्मते वेदस्यापौरुषेयत्वेन ईश्वरकर्तृकत्वाभावात् । न च तथापि आयुर्घृतमिति वेदवाक्यस्य भ्रमजनकत्वेनाप्रामाण्यं स्यादिति वाच्यम् । प्रजापतिरात्मनो वपामुदखिदत् इत्याद्यर्थवादानामिव अस्यापि स्वार्थे अप्रामाण्यस्येष्टत्वात् ।

ननु वृक्षः महीरुहः इत्यतः वृक्षत्वावच्छिन्ने महीरुहत्वावच्छिन्नाभेदान्वयो न संभवति । उद्देश्यतावच्छेदकविधेयतावच्छेदकयोरैक्ये अभेदसंसर्गकान्वयबोधस्याव्युत्पन्नत्वात् । अतः वृक्षः महीरुहपदप्रतिपाद्यः इति बोधो वक्तव्यः । यदि लक्षणया शक्यतावच्छेदकरूपेण लक्ष्यभानं तदा वृक्षत्वादिनैव तत्पदप्रतिपाद्यस्य बोधात् उद्देश्यतावच्छेदकविधेयतावच्छेदकयोरैक्यापरिहारेण निरुक्तव्याख्यानवाक्यस्य घटो घट इति निराकांक्षवाक्यतुल्यता स्यादिति चेन्न । सर्वस्मिन्नपि ज्ञाने तत्तद्वाचकशब्दो भासते । तदुक्तं हरिणा "न सोऽस्ति प्रत्ययो लोके यश्शब्दानुगमादृते । अनुविद्धमिव ज्ञानं सर्वं शब्देन भासते" ॥ इति । एवञ्च वृक्षविशेषणतया वृक्षशब्दस्य महीरुहविशेषणतया महीरुहशब्दस्य च भानेन वृक्षमहीरुहशब्दयोः उद्देश्यतावच्छेदकविधेयतावच्छेदकयोर्भेदेन न तद्वाक्यस्य निराकांक्षता । न च घटो घट इत्यपि प्रमा स्यात् उद्देश्यतावच्छेदकघटशब्दव्यक्तिभेदस्य विधेयतावच्छेदकघटशब्दव्यक्तौ सत्त्वादिति वाच्यम् । शब्दव्यक्त्योर्भिन्नत्वेऽपि समानानुपूर्वीकत्वात् । असमानानुपूर्वीकशब्दोपरागेण एकार्थबोधस्य सम्मतत्वात् । न चायमपसिद्धान्तः । घटः कुम्भः इति सामानाधिकरण्येन प्रतीतेः वैयाकरणसंमतत्वात् । प्रथममिथ्यात्वनिरूपणावसरे हि "मूले घटः कुम्भ इत्यत्र घटो घट

इति वक्तव्ये कुम्भपदं, सर्वं शब्दानुविद्धं भासते इत्युपगम्य घटकुम्भादिपर्यायपदानामपि स्वात्मकविभिन्नप्रकारकबोधजनकत्वमिति शाब्दिकमतानादरसूचनाय" इति विठ्ठलमिश्रा निरूपयन्ति। तेन स्पष्टं ज्ञायते घटः कुम्भः इति सामानाधिकरण्येन प्रतीतिः वैयाकरण-संमतेति।

अथ कमलानि कमलानि इति वाक्याच्छाब्दबोधो न स्यात्। लाक्षणिक-कमलपदेनापि कमलत्वेनैव व्यक्तिविशेषबोधोपगमे कमलत्वस्यैवोद्देश्यतावच्छेदकत्वाद्विधेयता-वच्छेदकत्वाच्च उद्देश्यतावच्छेदकविधेयतावच्छेदकयोर्भेदाभावात्। वृक्षो महीरुह इत्यत्रेव तत्तद्वाचकपदरूपावच्छेदकभेदोऽप्यत्र न संभवति। समानानुपूर्वीककमलपदस्यैव उद्दे-श्यकोटौ विधेयकोटौ च भानादिति चेन्न। पदार्थः पदार्थेनान्वेति न तदेकदेशेन इति व्युत्पत्तिः चैत्रस्य गुरुरित्यादिस्थले गुरुत्वरूपैकदेशान्वयबोधस्यानुभवसिद्धत्वात् यथा ससंबन्धिकार्थकस्थले संकोच्यते। तथा तद्धर्मावच्छिन्नाभेदसंबन्धावच्छिन्नप्रकारता-निरूपितविशेष्यतावच्छेदकतासंबन्धेन शाब्दबुद्धिं प्रति तद्धर्मभेदः कारणमिति कार्य-कारणभावः कमलानि कमलानीत्यादौ कमलत्वावच्छिन्ने कमलत्वेन व्यक्तिविशेषाभेदा-न्वयबोधस्यानुभवसिद्धत्वात्संकोच्यः। तथा च निरुक्तकार्यतावच्छेदककोटौ लाक्षणिक-व्यक्तिविशेषबोधभिन्नत्वं देयमिति ग्रन्थकृत्तात्पर्यात्।

अथ उपकृतं बहु नामेत्यत्र उपकारशब्दः अपकारे लाक्षणिकः। तत्र शक्यार्थेनोप-कारेण लक्ष्यस्यापकारस्य न साक्षात्संबन्धः। अपि तु स्वनिरूपितविरोधाधिकरणत्वं परम्परासंबन्धः। तदुक्तम् वृत्तिवार्तिके "न हि साक्षात्संबन्धे सत्येव लक्षणेति नियमः। व्यतिरेकलक्षणास्थले तन्निरूपितविरोधाधिकरणत्वादिपरम्परासंबन्धमात्रेण तादृशेन लक्षणा-क्लृप्तेश्च" इति। एवं इन्द्रार्थायां स्थूणायां इन्द्रशब्दो लाक्षणिकः। तत्र स्थूणायां इन्द्रशब्दशक्यार्थसंबन्धः तादर्थ्यम्। तच्च तत्कर्मकपूजाप्रयोजनकत्वम्। तदपि परम्परा-संबन्ध एव। तथा च गौण्यतिरिक्तस्थले परम्परासंबन्धस्य लक्षणानियामकत्वाभावकथनं न संगच्छते इति चेन्न। विरुद्धत्वं तादर्थ्यञ्च अखण्डः संबन्धः न परम्परासंबन्ध इत्या-शयात्। न चैवं सादृश्याधिकरणत्वमपि अखण्डसंबन्ध इति गौणीस्थले परम्परासंबन्धस्य

लक्षणानियामकत्वस्वीकारो व्यर्थ इति वाच्यम्। सादृश्याधिकरणत्वस्य अखण्डत्वेन ग्रन्थकारानुभवविरहात् अखण्डत्वसखण्डत्वादीनां तत्तद्ग्रन्थकारानुभवानुरोधित्वात्।

ननु निरूढलक्षणाभिन्नलक्षणास्थले सर्वत्र प्रयोजनं न संभवति। अयमर्थ इति मूलं अयमाशय इति विवृण्वन्ति व्याख्यातारः। तत्र अर्थशब्दः आशये लाक्षणिकः। न हि तत्र किमपि प्रयोजनमस्ति। एवं भावप्रधाननिर्देशस्थलेऽपि। तदर्थवाचकपदस्यान्यत्र प्रयोगः तद्धर्मप्रतिपत्त्यर्थः इत्युत्सर्गः इत्युक्तत्वाच्च सर्वत्र लक्षणायां प्रयोजनं नास्तीति गम्यते। यदि आयुरेवेदमित्यत्र यथा घृते आयुषः अत्यन्ताभेदप्रतीतिः प्रयोजनम्। तथा निरुक्तस्थलेष्वपि तत्तत्पदशक्यार्थात्यन्ताभेदप्रतीतिः प्रयोजनं संभवतीत्युच्यते। तदा त्वचा ज्ञातमित्यादिनिरूढलक्षणास्थलेऽपि त्वगिन्द्रिये त्वक्शब्दशक्यार्थचर्मणा अत्यन्ताभेदप्रतीतेः प्रयोजनत्वसंभवात् तत्र प्रयोजनाभावकथनमसंगतमिति चेत्। सत्यं वर्तन्ते प्रयोजनाभावेऽपि लाक्षणिकाः प्रयोगाः। तेषु स्थलेषु काव्यदोष एव। आयुरेवेदमित्यादौ प्रयोजनान्तराभावेन शक्यार्थात्यन्ताभेदप्रतीतिरेव प्रयोजनत्वेन विवक्ष्यते। त्वगिन्द्रिये शक्यार्थचर्मात्यन्ताभेदप्रत्ययं प्रयोजनमनभिसन्धायैव त्वचा ज्ञातमित्यादीन् निरूढलाक्षणिकान्शब्दान्प्रयुञ्जते। अतस्तत्र प्रयोजनं नास्तीत्युच्यते इति रसिकानुभवसिद्धः पन्थाः। तमनुससार ग्रन्थकारः इति॥

(२) प्राचीनवैयाकरणाश्च स्पष्टमेव लक्षणा नास्तीति प्रतिपादयन्ति। तेषामयमाशयः। व्यवहारो मुख्यः शक्तिग्राहकः। स च लक्ष्यत्वाभिमतेऽपि तुल्यः। न च प्रवाहे गङ्गाव्यवहारः स्वाभाविकः तीरेत्वौपाधिक इति व्यवहारस्य नोभयसाधारण्यमिति वाच्यम्। गङ्गायां घोषः प्रतिवसति तमानयेत्युक्तौ तीरान्वितघोषानयनरूपव्यवहारेण व्युत्पित्सोः तीरेऽपि गङ्गापदशक्तिज्ञानस्य संभवात्। तथा च शक्तिग्राहकस्य व्यवहारस्य मुख्यलाक्षणिकोभयसाधारणत्वात् लाक्षणिकत्वाभिमतेऽपि शक्तिरेव न लक्षणा। लक्षणाख्यवृत्त्यन्तरकल्पने गौरवात्। न च शक्यसन्बन्धो लक्षणा, गङ्गायां घोषः इत्यत्र च गङ्गापदशक्यप्रवाहसंबन्धः तीरे क्लृप्त एवेति वाच्यम्। यतः न लक्षणानास्तित्ववादिनः शक्यसंबन्धमेव निषेधन्ति। अपि तु तस्य पदपदार्थसंबन्धत्वं तज्जन्योपस्थितेः शाब्दबोधानुकूलत्वञ्चेति।

ननु शक्यसंबन्धरूपा लक्षणा क्लृप्ता। तस्याश्च तीरादिरूपसंबन्धिस्मृतिजनकत्वमपि क्लृप्तमेव। परन्तु लक्षणावादिना शक्यसंबन्धप्रयोज्यतीरोपस्थितेः शाब्दबोधानुकूलत्वरूपो धर्मः कल्प्यते। शक्तिवादिना तु गङ्गापदस्य तीरे शक्तिः (धर्मी) कल्पनीया। एवञ्च धर्मिकल्पनातः धर्मकल्पनाया ज्यायस्त्वात् तदेवोचितम्। किञ्च शक्तिवादिनोऽपि गङ्गापदजन्या तीरस्मृतिः तीरशाब्दबोधानुकूलेति संमतम्। तादृशतीरस्मृतिजनकत्वञ्च क्लृप्तस्य शक्यसंबन्धस्यैव कल्पयितुमुचितम् न त्वक्लृप्तायाः शक्तेः। एवं गङ्गापदस्य लक्षणीयतीरादिषु अनेकार्थेषु शक्तिकल्पने गौरवमिति चेन्न। 'इन्द्रियाणां स्वविषयेष्वनादिर्योग्यता यथा। अनादिरर्थैश्शब्दानां संबन्धो योग्यता तथा'॥ इति हर्युक्तेः बोधकत्वमेव शक्तिः। गङ्गापदञ्च तीरबोधकमिति तवापि संमतम्। एवञ्च गङ्गापदे तीरबोधकत्वरूपतीरशक्तेः क्लृप्ततया तत्र शाब्दबोधानुकूलतीरोपस्थितिजनकत्वकल्पनमप्युचितमेव। एवं लक्षणीयानां सर्वेषामर्थानां बोधकत्वस्य पदे क्लृप्तत्वात् न अनन्तलक्षणीयपदार्थेषु शक्तिकल्पनागौरवम्। न च अस्मात्पदादयमर्थो बोद्धव्य इतीश्वरेच्छायाः शक्तित्वे गङ्गापदस्य लक्षणीयतीरादिषु शक्तिकल्पने गौरवमिति वाच्यम्। गङ्गापदात्तीरानुभवस्य जायमानत्वात् सन्मात्रविषयिण्यां भगवदिच्छायां तीरादौ गङ्गापदबोद्धव्यत्वावगाहिताया अपि क्लृप्तत्वात्। न च गाव्यादयोऽपभ्रंशा न वाचकाः। अतः तेषु शक्तिज्ञानं भ्रम इति निरूपणीयम्। तच्च न संभवति गाव्यादिशब्दाद्गोबोधस्य जायमानत्वेन सर्वविषयिण्या ईश्वरेच्छायाः गौः गावीशब्दजन्यबोधविषयो भवत्वित्याकारिकायाः संभवेन गावीशब्दे शक्तेरेव सत्त्वात्। अतः संबन्धत्वगर्भा ईश्वरेच्छा शक्तिः। भगवदिच्छायाश्च नापभ्रंशसंबन्धत्वं कल्प्यते इति अपभ्रंशे निरुक्तशक्तिज्ञानस्य भ्रमत्वमुपपादनीयम्। तथा च शक्तिवादिना ईश्वरेच्छायां तीराद्यनन्तलक्ष्यपदार्थसंबन्धत्वं कल्पनीयम्। एवं संबन्धत्वगर्भतादृशसंकेतप्रयोज्यायाः तीराद्युपस्थितेः शाब्दबोधानुकूलत्वमपि कल्पनीयमिति गौरवमिति वाच्यम्। अपभ्रंशानामपि वाचकत्वस्यैव वैयाकरणसिद्धान्तसिद्धतया तत्र शक्तिज्ञाने भ्रमत्वोपपादनस्यानावश्यकत्वेन नानापदार्थसंबन्धत्वादिकल्पनागौरवस्यानवकाशात्।

एवं लक्षणास्वीकारे शाब्दबोधे शक्तिजन्योपस्थितेः लक्षणाजन्योपस्थितेश्च कारणत्वे परस्परं व्यभिचारवारणाय तत्तदुपस्थित्यव्यवहितोत्तरत्वस्य तत्तदुपस्थितिकार्यतावच्छेदके प्रवेशेन गौरवम्। एवं पदार्थोपस्थितिं प्रति शक्तिज्ञानस्य लक्षणाज्ञानस्य च प्रत्येकं

कारणत्वं कल्पनीयमिति गौरवम् । तस्माल्लक्षणाख्यं वृत्त्यन्तरमेव नास्ति । अत एव प्रायः सर्वे सर्वार्थाः इति वैयाकरणप्रवादः संगच्छते इति ॥

तत्रेदं बोध्यम् । वाचकः लक्षकः इति प्रामाणिको व्यवहारः सर्वतान्त्रिकाणाम् । गङ्गापदस्यापि तीरे शक्तिस्वीकारे गङ्गापदं तीरवाचकमिति व्यावहार आपद्येत । अतः यः शब्दः यस्मिन्नर्थे प्रसिद्धः स शब्दः तदर्थवाचकत्वेन व्यवह्रियते । यस्मिन्नर्थे न प्रसिद्धः तत्र गौणत्वेन व्यवह्रियते । तीरादौ च गङ्गापदस्य प्रचुरप्रयोगो नास्ति । अतः गङ्गापदं तीरवाचकमिति न व्यवहार इति वक्तव्यम् । एवञ्च निरुक्तव्यवहारनयने क्लेशः ।

अपि च बोधकत्वस्य शक्तित्वसंभवे गङ्गापदे तीरबोधकत्वसत्त्वेन तीरे शक्तिः सिद्ध्यति । पदे बोधजनकत्वान्यथानुपपत्त्या कल्प्यमानः संबन्धः न बोधकत्वमित्यादिना बोधकत्वं न शक्तिरिति प्रतिपादितम् । एवञ्च लक्ष्यव्यावृत्तस्यैव शक्तिस्वरूपस्य धर्मिग्राहकमानसिद्धत्वात् लक्ष्योपस्थितये लक्षणा स्वीकरणीयैव । न च वाच्यवाचकभावाख्यस्य पदार्थान्तरस्य शक्तित्वं स्वीकुर्वतां मते तथा संभवेऽपि अस्मात्पदादयमर्थो बोद्धव्य इतीश्वरसंकेतस्य शक्तित्वमते गङ्गापदस्य तीरे शक्तिः सिद्धैव गङ्गापदात्तीरबोधोदयेन सन्मात्रविषयिण्याः भगवदिच्छायाः तीरे गङ्गापदबोद्धव्यत्वावगाहित्वादिति वाच्यम् । गङ्गायां घोषः इत्यादौ गङ्गापदसमभिव्याहृतघोषपदादेव तीरान्वितविषयकः शाब्दबोधो जायते इति पक्षे गङ्गापदजन्यस्य तीरबोधस्य अळीकत्वेन तद्विषयकत्वस्य भगवदिच्छायामक्लृप्तत्वात् ।

ननु कुमतिः पशुः इति सर्वलाक्षणिकस्थलेऽपि शाब्दबोधस्यानुभवसिद्धत्वाल्लाक्षणिकस्याप्यनुभावकत्वपक्ष एव साधुः । तत्पक्षे च गङ्गापदजन्यतीरबोधस्य प्रसिद्धत्वात् तीरे गङ्गापदजन्यबोधविषयत्वावगाहित्वं सिद्धमेवेति न शक्तिः कल्पनीयेति चेन्न । अस्मात्पदादयमर्थो बोद्धव्य इतीच्छया ईश्वरेणोच्चरितत्वं शक्तिरिति मिश्रमते गङ्गापदात्तीरबोधो भवत्वितीच्छया ईश्वरोच्चरितत्वस्य गङ्गापदे, शाब्दबोधानुकूलत्वस्य च तत्प्रयोज्यतीरोपस्थितौ कल्पनामपेक्ष्य क्लृप्तशक्यसंबन्धप्रयोज्योपस्थितेः शाब्दबोधानुकूलत्वमात्रकल्पने लाघवात् ।

यदि च निरुक्तेच्छया ईश्वरोच्चरितत्वं न शक्तिः अस्मदाद्युच्चरितघटादिपदस्य, पित्रादिभिः संकेतितस्य देवदत्तादिनाम्नश्च ईश्वरोच्चरितत्वाभावेन अशक्तत्वापत्तेः। अतो निरुक्तसंकेत एव शक्तिः। सा च सिद्धैवेत्युच्यते। तदापि लक्षणा स्वीकरणीया। तथाहि एकैकस्य संस्कृतशब्दस्य अनेके अपभ्रंशाः सन्ति। गवादिवाचकत्वस्य अनेकेषु कल्पनायां गौरवमिति संस्कृतशब्द एव शक्तिः नापभ्रंशेषु। तदुक्तं जैमिनिना अन्याय्यश्चानेकशब्दत्वमिति। एवञ्चापभ्रंशा न वाचकाः। न चैवं सति घटपदस्यैव घटवाचकत्वं न कलशादिपदानां अनेकत्र घटवाचकत्वकल्पनायां गौरवादिति पर्यायोच्छेद इति वाच्यम्। तत्र विनिगमनाविरहात् कलशादिपदेष्वपि शक्तिः सिद्ध्यति। अत्र तु संस्कृतस्य सर्वदेशेष्वेकत्वं अपभ्रंशानान्तु देशभेदेन नानात्वमित्यस्ति विनिगमकम्। अतः संस्कृतशब्द एव शक्तिः। अत एव शक्तिग्राहककोशादिषु अपभ्रंशाः पर्यायतया न परिगणिताः। अन्यथा साधूनामेव कोशादौ कथनमिति नियमकल्पनेन गौरवं स्यात। न चापभ्रंशस्यावाचकत्वे कथं तस्माच्छाब्दबोध इति वाच्यम्। व्युत्पन्नस्य गाव्यादिशब्दश्रवणे साधोर्गोशब्दस्य स्मरणं जायते। तेनैव तस्य शाब्दबोधः। असंस्कृतज्ञानां देशभाषामात्रविदाञ्च अपभ्रंशेषु शक्तत्वभ्रमाच्छाब्दबोधः। कथं तेषां अपभ्रंशेषु शक्तत्वभ्रमो जात इति चेदित्थम्। केनचिद्गौरिति शब्दे प्रयोक्तव्ये प्रमादात् गावीशब्दे प्रयुक्ते, व्युत्पन्नः तेन गावीशब्देन गोशब्दमुन्नीय ततो गां प्रतीत्य व्यवहृतवान्। पार्श्वस्थश्च व्युत्पित्सुः गावीशब्दादेवायं गां प्रतीतवानित्यवगम्य गावीशब्दमेव गोशक्तत्वेन प्रतीत्य अन्येषां व्युत्पादको बभूव। ततोऽन्येषां तेषु शक्तत्वभ्रमो जातः। एवञ्च अपभ्रंशे ईश्वरसंकेतस्य सत्त्वेऽपि तस्य अपभ्रंशसंबन्धत्वे मानाभाव इति संबन्धत्वघटितशक्तेस्तत्र भ्रमो वाच्यः। तथा च लक्षणाया अनङ्गीकारे गङ्गापदसंकेतस्य तीरादिनानापदार्थसंबन्धत्वं, तत्प्रयोज्यतीराद्युपस्थितेः शाब्दबोधानुकूलत्वञ्च कल्पनीयम्। लक्षणास्वीकारे तु क्लृप्तसंबन्धभावशक्यसंबन्धप्रयोज्यतीरोपस्थितेः शाब्दबोधानुकूलत्वमात्रं कल्पनीयमिति लाघवम्। तस्मात् गङ्गापदस्य तीरे लक्षणैवोचिता।

(To be continued.)

University Notes

FOUNDER'S DAY

The Seventh Founder's Day was celebrated on the 30th September, 1936. Mr. T. R. Venkatarama Sastriar, B.A., B.L., C.I.E., delivered the address.

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STAFF

We congratulate Mr. B. Ramamurthi, M.A., Lecturer in Mathematics in the University, on obtaining the Degree of Doctor of Science of the Madras University. The thesis which secured him the degree is entitled "Binary Geometry of the Rational Norm Curve." Dr. B. Ramamurthi has been contributing frequently to various learned mathematical Journals in India and Europe.

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PUBLICATIONS

The University has published the following books this year :—

1. Tattvabindu with Tattvavibhavana (Annamalai University Samskrit Series No. 3) by Mr. V. A. Ramaswami Sastriar, M.A.

2. Acoustics by Mr. R. K. Viswanathan, B.A. (Hons.).

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RESEARCH STUDENTSHIPS

The following research studentships were awarded during the year :

Junior.

K. Subrahmanyan	..	History
C. Jagannathachari	..	Economics
K. Venkata Rao	..	Economics
V. Sitaraman	..	Mathematics
A. S. Narayanaswami	..	Physics
P. L. Narasimha Rao	..	Chemistry
P. R. Venkataraman	..	Chemistry
K. Vellaivaranan	..	Tamil
V. Mallaiya	..	Samskrit
Tirugnanasambandam	..	Samskrit

Senior.

V. Sivaraman, M.A., M.Litt.
P. S. Varadachari, M.A., M.Sc.

THE SANGITA VIDVANS' CONFERENCE PRIZE

This endowment was founded by the members of the Working Committee of the Music Conference held at Annamalainagar in February, 1936, and consists of Rs. 731-10-6 invested in fixed deposit with the Urban Bank, Chidambaram, yielding an interest of 5% per annum; the interest to be utilised for the award of a prize annually to the student who obtains the highest percentage of marks at the Sangita Bhushana Title Final Examination at his first appearance.

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NEW BUILDINGS

The construction of the following buildings is in progress:—

The University Union,
The Music College,
New Hostel Buildings,
Guest House and Staff Club.

The New Hospital Buildings were opened on the 30th September, 1936 by Dr. S. Padmanabha Sarma, District Medical Officer, South Arcot. The hospital is intended to serve the needs of not only the students and staff of the University but also the inhabitants of the neighbourhood. It is equipped with up-to-date arrangements. The total cost of buildings and equipment comes to Rs. 33,000.

On that occasion the portraits of the Pro-Chancellor and the Vice-Chancellor were unveiled by Mr. S. Venkateswaran, I.C.S., Collector of South Arcot.

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The prize of Rs. 750 to the author of the best Text-book in Tamil on Music suitable for use in the Sangita Bhushana Title Course was awarded to Mr. K. Ponniah Pillai, Pandit in Music of this University.

A prize of Rs. 1000 has been instituted for the best manuscript in Tamil on Physics for use as a text-book for the Intermediate Examination and manuscripts have been invited to be sent by the 31st July, 1938.

Reviews

Economic Conditions in Southern India (1000—1500 *A.D.*), 2 *Vols.*—By Dr. A. Appadorai, M.A., Ph. D. (University of Madras. Price Rs. 10).

" Economic History " writes Mr. Edward Hughes " is the salt of history." It is not a separate branch of history, it is one way of approach, perhaps the safest way of it. The Middle Ages in India had so far been considered as a dark period at least as regards this aspect. That this has been so is due not only to the comparatively scanty nature of the materials available for research, but also due to the nature of the life of the people of the times. It is well known that in ancient India custom and religion rather than economic forces determined the activities of the people. Hence to unravel those economic forces which played a part in their lives from the tangled web of other social factors is no easy task. Dr. Appadorai has undertaken this apparently impossible task and a pioneer attempt of this nature deserves our hearty welcome and encouragement.

He has tried to prove that even the " unchanging East " has changed through the centuries. The vicissitudes of economic life of the village, commerce, trade, industry and standard of life of the people in S. India through the five centuries from 1000—1500 are painted graphically.

Chapter I begins with an introductory section which in a nutshell explains the scope and nature of the whole treatise. The sources of the material used are then elaborately discussed and their relative claims to authenticity determined. The physical characteristics of S. India and the elements of population comprising it are the subject of the next section and the chapter concludes with a succinct account of the political history of S. India from the end of the tenth century up to the coming of the Portuguese which forms a useful background for a proper understanding of the economic history of the period.

Coming to the subject proper, the economic life of the village community claims the first attention of the author. Accounts of foreign travellers supplemented by evidences of the inscriptions are fully utilised in drawing a clear picture of the village settlement. The village was the economic unit except in Malabar. It was in the mediæval ages an aggregate of cultivated holdings, generally with some waste land attached to it, and the utilisation of the land of the village for the various needs of the villagers formed its economic characteristic. While the mediæval village was given the scope for expansion, in some cases a limit was also set to it. The important topic of land tenures forms the subject for treat-

ment in the next section. The time-honoured "war of words" on the topic whether private property in land existed in mediæval S. India is opened afresh by the author. He lays down a right criterion of private property, viz., the power to alienate. With this criterion as the basis, he examines the views of the law-givers and jurists, but the most reliable conclusions are drawn from an examination of a variety of inscriptions. We learn that kings of mediæval S. India attached extraordinary sanctity to private property. They deemed it unfair to touch even the land of the childless. (A short paragraph is devoted to the term *Kaniyatci* which might very well have been relegated to a Note or Appendix outside the chapter.) Having substantiated the existence of private property in land, the author proceeds to examine whether this private property in land was individual or corporate; in other words, whether they followed the ryotwari or joint village system. The author distinguishes three classes of joint villages marked by the degree of collective ownership over the land; in the first, land was collective property, the individual having a share only in the yield; in the second, individual property existed for a period after which there was re-distribution; and in the third, a part was held in common and a part in severalty. The author is inclined to suggest a natural evolution through these three stages before unrestricted individual rights in property appeared, although, he admits it is "difficult" to postulate it from the available evidences.

In our opinion the most noteworthy contribution of Dr. Appadorai, to the subject, is his conclusions regarding two points, both very much contrary to the prevalent ideas, about them. In the first place Baden-Powell's deductions regarding the existence of ryotwari along with joint tenure are astonishingly confirmed by the author's study of the inscriptions. Nay, we even get a clearer view of the tenures of the times. The *vellālan vagāi* or ryotwari was the common feature of tenure in the Tamil land and the joint tenures were only the exceptions occurring in certain *caturvedi-mangalams* (which were the result of deliberate colonization) owned chiefly by a set of non-cultivating landlords. The second point to which we would draw the attention of the readers is the wide difference that existed in the constitution of these two types of tenurial villages. The generalization from a study of Uttaramallur inscriptions that local government in ancient India reached a high stage of development implying wide devolution of powers is disposed of by Dr. Appadorai as "wide assumptions." The author has ably shown that the elaborate development of the committee organization was prevalent only in certain types of villages like the *Taniyurs* or *Caturvedi-mangalams* which were sporadic and few in number. In the face of his own deductions, we are unable to find the gravemen of the author's criticism of Altekar. However, it is to

the credit of Dr. Appadorai to have given a clear perspective of the local administration of the Cōla times. The author then deals with a few types of other forms of tenure, discusses the problems of tenancy and concludes with the modes of payment, in *Vāram* and *Kuttagāi* (kind and cash) and the shares received by the landlord.

The agricultural practice of the period takes up a considerable part of the work. Under it, the crops grown in S. India in the Middle Ages are enumerated from the evidence of inscriptions and foreign travellers and Nelson's ingenious inference that dry crops were practically unknown in those times is easily refuted. The crops that were grown in S. India then do not seem very much to have differed from those existing now. There was a vast extent of land under the plough and a continual process of active land reclamation was also in progress. This was encouraged both by the State and private agencies like the temple, landlords and the village community and inducements were offered to this end by way of concessions in taxation, grant of a portion of reclaimed land, etc. But the important activity to which these agencies paid even greater attention was the construction and maintenance of irrigational works. Detailed information regarding the skill of the Hydraulic engineers, the financing of these public works, the agencies of distribution and the respective importance of the parts played by the State and local bodies in the discharge of their task are all gathered from the inscriptions. And the author agrees with Prof. Vincent Smith that the Muhammadan sovereigns in the Dekhan continued to maintain and extend the work started by their Hindu predecessors. As regards either the process of cultivation or the implements of ploughing, the author rightly remarks that there has been little change since the days when Kamban sang his *Erelupadu*. (Tamil scholars are divided regarding the authorship of the poem.) The accounts left by Varthema and Ibn Batūtā regarding the pepper cultivation are also incorporated. Regarding such points as the breeding of livestock, maintenance of pasture, etc., the author bases his conclusions mainly on the theorists. Information regarding the yield of land is scanty as also that regarding the efficiency of agricultural labour, hired and permanent, and the rates of remuneration. The author infers that the agricultural slaves of the Middle Ages were in a better economic condition than is commonly supposed.

From this, the author proceeds to consider the topic of land values. Mentioning the great part that land played in the mediæval economy, the author refutes the assumption of Baden-Powell that in the Dekhan land had no market value during the Hindu days with a reference to contemporary inscriptions and enumerates a few available transactions of land sales. Next he takes up the question of village servants which is so intimately connected with the village economy of the Middle Ages. The

inscriptions are availed of a great deal and from them we learn that the economic organization of S. India in the Middle Ages was not uniform even in the Tamil country, much less so in S. India. The method of payment by *mēra* is dealt with in detail, and the economic origin and incidence of such a system are examined. The place of the temple in the mediæval economy is the next subject for research. This is in view of the position of the temple as a huge employer and landlord, consumer, lender, etc., in almost all the villages in the Middle Ages. The services rendered by them were manifold. They often financed the needy agriculturists, encouraged agriculture and handicrafts, shone as centres of poor relief, and imparted instruction to poor students; and as if for these services rendered, the temple enjoyed certain privileges in the form of concessions in taxation, tolls, etc. An interesting parallel lies between the mediæval European church and the South Indian Hindu temple in the sphere of economic activities. The author concludes that "a study of the temple in its economic aspect warns us against exaggerating the isolation and self-sufficiency of the mediæval village." The temple by owning land in different localities created a closer economic relationship between village and village. The question of contact between villages takes the author to the study of the question of internal migration. Apart from political and social causes, migrations, particularly occurring in groups in those days, were due to such economic causes as famine, epidemics, pressure of taxation, pressure on land, etc. Evidences of urban migration are also cited. The result of such an internal movement was, according to the author, a shifting of population, extension of cultivation, wider distribution of handicrafts and breakage of the village isolation. The chapter concludes with a consideration of the economic characteristics of the village and sounds a note of warning against the commonly entertained notion of the economic self-sufficiency and isolation of the village, particularly by Western authors.

Chapter III deals with towns and internal trade. The factors which helped the growth of towns in S. India are enumerated, of which the most important were, "river, government, site, pleasure resort, commerce, fairs, etc." The conclusions of the author regarding the life in towns are mainly based on the accounts of Vijayanagar by Nuniz and Paes and a tendency to generalize for the whole of S. India is visible throughout the chapter. The author draws a clear-cut line between city life and village life and though this might be largely true of Vijayanagar, it is doubtful if it could be applied with equal force to the rest of the country and to the rest of the period under review.

The second volume begins with a survey of industries in the Middle Ages. From the comparatively meagre evidence available for this aspect

of the question, which mainly consists of the notices of travellers, we can gather only in outline an account of the main industries and the system of production prevalent. Among the handicrafts, the metal industries occupy the first place. The demand for the articles produced by these industries arose from temples, courts, armies and households. Weaving, according to the author, comes only second. The demand for textiles was both internal and external. Next comes tailoring. The author sets out to correct with the aid of inscriptions the irresponsible statements of foreigners that people went about naked and that tailors did not exist. But it must be remembered that this statement by foreigners was only relative as compared with the countries from which they came and that it could never mean that people went about nude. This is particularly clear when they attribute this condition to "climate." One Chinese account says: "The Moors in India are said to have dressed themselves according to their custom in *jibbi* and *balandran*. Others are said to have worn shirts, long shirts, and cloaks thrown over shoulders." Anyway that tailoring was an industry that did not play any prominent part in the economic structure of the country is beyond doubt. The other handicraft that is mentioned by the author is wood-work. Here again the author disproves the belief based on the statement of some of the foreigners that wheeled carriages were unknown south of the Vindhyas in the Middle Ages. Still it is difficult to believe that convenient carriages of efficient construction were prevalent then in the face of such evidences as the Report of the Public Works Commission of 1852 who "found only carts with wheels either formed of solid pieces of timber or cut from a single block of stone." In the ship-building industry, S. India did not attain any measure of prominence worthy of notice. Leather industry also seems to have existed and there was of course pottery. Then the author deals with mining, fishing, etc. An account of the demand for precious stones, of the methods of procuring diamonds and of the way in which pearl fisheries were worked is given, based on the notices of foreigners. The mining of gold, iron, sulphur, copper and salt was also actively carried on. Other industries are chiefly agricultural industries like the tapping of toddy, preparation of jaggery, extraction of coir, mat-making, umbrella-constructing, etc. Then there were industries relating to food products like grinding of corn into flour, extraction of sugar from cane, and oil from seeds. Dyeing, according to the author, was also an agricultural industry. The author's inference that dyeing was the monopoly of a particular caste and that occasionally dyers migrated where there was demand for their services from a solitary instance at Parasurama Perunteru in Kottar has no special significance whatsoever, as the same can be said of most of the industries and artisans of the times.

Available evidences regarding the system of production are brought together. The system in the villages is described in the following terms: "The handworkers were small farmers who were not able to live from the product of their allotments alone; they were attached to the village subject to the disposal of any one who had need of industrial service. They were essentially village serfs . . . The distinguishing feature of the system was absence of localization in contrast with the town where whole villages or streets consisted of artisans of the same trade." The point which has an interesting parallel to the system prevalent in mediæval Europe was the combination of agriculture with industrial pursuits.

The systems of production in the urban area, according to the author, were different from those existing in the villages and were mainly three. These were piece-work, wage-work and work of the itinerant type. The noticeable feature of the first was that the producer in the presence of the consumer felt responsibility for his work and there appears to have existed regulations to protect the consumer, a provision which has a close analogy in the German law of the period. In the wage-work system, abuses like the misappropriation of part of the raw material given to the handicraftsmen are well protected against. Regarding the wage-work of the migratory type, the author draws two inferences from the evidences of inscriptions. One was the encouragement given by rulers of the land to such migrations, and another hostility of the people of the new places to the incoming of the strangers. The latter statement is based only on one piece of evidence, viz., the incident at Kottar. This, however, is but a solitary instance where the animosity of the superior castes was not due to any dislike of the aliens or jealousy of their profession, but due to the violation of certain social privileges and infringement of certain rights of local autonomy till then enjoyed by the higher castes who dominated the administration of Nanjanad. The opposition never came from rival dyers or weavers. In this connection we would like to suggest that the author could have profitably used the indigenous literary evidence to draw a more vivid picture of the industries of the times. We feel that all the materials of this source have not been exhausted. Many technical works particularly in Tamil are assigned to this period which will throw further light on the economic aspect of a variety of pursuits like architecture, medicine, alchemy, etc. Hence the picture is lacking in such details as the raw materials of industry, the process of production, the conditions of labour and the relation between the employer and the employed.

The next chapter deals with the foreign trade of S. India in the Middle Ages. The evidence is based almost solely on that of foreign travellers and chroniclers. A brief sketch of the main features of this trade in the first half of the tenth century under the heads exports and

imports, rise and fall of ports, commercial communities, shipping, security and navigation is followed by a detailed description of the same through the successive centuries up to the 15th. The change in the contents and course of the foreign trade of India since the mediæval times is brought *out* clearly from a review of the same during the period.

The author disproves the statement that the early Arab settlements were the result of conquest and proves that they were peaceful mercantile establishments encouraged by the astonishing tolerance of the Zamorins who had their own economic motives for the pursuit of such a policy. The explanation of the author for the question why Malayalees did not take to trade seems to lie chiefly in the joint family system which reduced their personal credit. But the chief explanation is to be sought for in another direction. The Nairs, who were the most powerful community among the Malayalees and who alone in the Hindu fold were in an economic position to take to trade were a military class of landlords to whom the profession of the trader was a contemptible docile occupation. This can be seen even to-day in the northern parts of Travancore and Cochin where all Tamils are clubbed together as Chettis and considered inferior in social status.

The author traces the rise and fall of successive commercial communities and centres of trade in the southern portion of the peninsula. The course of navigation and the methods of ship-building are described in detail. Having assumed that it is incorrect to identify Kaucammali with Cochin, the author identifies it with Quilon. "Leaving Kaucammali on the west coast of S. India, ships made directly for Kalah in the Malay peninsula, which was reached in a month from Kulam." Here is a contradiction by the author. If Kaucammali was intended to refer only to Quilon, there is no meaning in using another word to indicate the same place in one and the same sentence.

It is interesting to learn that S. India not only exported, but also imported, cloth of certain fabrics. In tracing the causes of the decline of the Chinese trade, the author draws an interesting parallel from English Economic History to the mercantilist policy that was predominant in the mediæval age. Such parallel observations are found here and there in the book and they are of no mean value for a comparative study of economic conditions. It is pleasing to note that the commercial morality of the Hindus was high, although we learn that piracy was encouraged on the west coast by certain kings for the sake of possessing a better cavalry.

Much industry has been devoted by the author to the section on currency and prices. An attempt is made to trace the development of

the money medium from the 11th to the 15th century. He tells us that gold formed the predominant coinage of S. India and silver had very little role to play. That this has been so even as late as 1835 when the rupee was established as the legal medium is corroborated by recent researches on the subject.

The question of taxation takes up a separate section. The author is undecided as to whether taxation was light or heavy. Here, as elsewhere, the author, with the astuteness of the scholar, is thoroughly unbiassed. The tradition of taking one-sixth of the produce of land which had been honoured in the breach rather in the observance and the methods resorted to by successive kings to evade the Shastric maxim are referred to. Finally, the standard of life of the people, the crux of all economic problems, is reviewed in detail and the traditional notion of the ascetic self-sufficiency of the villages is exploded.

A word regarding the sources. Of the nine sources availed of by the author, only three stand prominent, these being inscriptions, travellers' accounts and works of jurists. The value of inscriptions is well understood by him and it is no exaggeration to say that he makes the best possible use of them. The silent stones are pressed into service and made to speak on the controversial question of land tenures and the system of taxation in mediæval S. India. On the question of industries, trade, etc., however, the author has chiefly to rely on the accounts of foreign travellers. Both Barbosa and Marco Polo are freely but critically made to render aid on these points. But where, however, the author has overdone is in the importance he has given to the theoretical jurists like Vigganeswara and Madhavacharya. No doubt the author is cautious and careful in his statements as to how far those theories would have been carried out in actual practice; but still the repeated reference to them almost at every stage leaves the reader with the impression that these sources have been given excessive prominence. For one thing, as the author himself admits, these theories were not applicable to all the Hindu princes of S. India.

Dr. Appadorai is throughout lucid and has mostly avoided the temptation to infer the coming of a whole summer from the flight of a single sparrow, which largely arises where there is paucity of materials. There are many useful appendices on land values, currency, weights and measures and rates of interest with a bibliography which will aid future and further research on the subject. The two volumes cover 892 pages of boldly printed type. It looks as if a favourable star has risen on the firmament of the economic history of S. India. To-day Dr. Appadorai has come out with a learned treatise on the subject covering the 4 centuries

from the eleventh to the fifteenth. It is true that Dr. Appadorai's task is arduous from the nature of the materials he has to handle. Hence it is that as Prof. K. A. Nilakanta Sastri says the picture is by no means complete. But it is certainly a bold venture on the part of Dr. Appadorai to have attempted even an outline. His work will form a monumental basis for future scholars and with the bridging of the intervening gulf, we will have a continuous account of the economic history of S. India from early to modern times.

Dr. Appadorai's book is a very comprehensive treatise on the subject which is well written and highly interesting and valuable.. The author displays a remarkable capacity for intelligent research and sound judgment. His book will greatly help and stimulate scholarship in this branch of study. It is a book that few Economic History students can afford to be without.

The University of Madras may well congratulate itself on the publication of such a work.

B. V. NARAYANASWAMY.

Some Aspects of Economic Planning—By N. S. Subba Rao—Being Sir William Meyer Lectures, 1932-33. (The Bangalore Press). Price Rs. 3.

This is a book of outstanding interest for it enables us to see how another Mysore economist looks at planning. The whole controversy over economic planning has suffered greatly from a widespread lack of understanding of the fundamental issues at stake. To what is 'planning' an alternative? Planning is really an alternative to pricing, that is to say, to the operation of free price system, and the two, planning and pricing are alternating methods of distributing economic resources in such a way as to satisfy various demands. Under the price system this is achieved through the influence of free consumer's choice on prices on the one hand and the willingness of producers to work or save for a certain wage or salary or dividend on the other. It is ultimately the individual choices of the persons, determined by their individual desires which decide the direction of production and consumption.

How is it to be decided under planning? This is a very much more difficult problem. It is now coming to be believed that the community can and must deliberately plan, direct, and control, not in detail, but in broad outline the economic development to which innumerable individual activities contribute. We cannot in future be content to rely for such economic direction entirely upon the uncoordinated decisions of individuals or groups which cannot, in the nature of things, see the national problem as a whole. The nation will require of its government not a

merely passive policy of giving relief to the victims of a defective economy, but a positive energetic leadership in constructing a new organisation for collective planning and direction of its economic life.

Of the 6 chapters of the book, the first introductory chapter deals with the meaning and scope of planning. Planning, it is said, has a threefold objective, utilisation of all available resources, adjustment of production and consumption and maximum satisfaction of the needs of the people and this is to be achieved by the co-ordination of economic activities under a unifying centre. Briefly stated, what is sought to be achieved by the new methods and machinery is efficiency of production stability of economic life and equity of distribution. Chapters 2, 3 and 4 deal with these three central ideas and chapter 5 dealing with the most interesting aspect of the subject, namely, planning in India, is admittedly sketchy. The whole book prompts the conclusion that whether or not national planning is desirable, some intelligent regulation of the economic relations of different nations is an urgent necessity. The conviction is growing that the solution of the economic problem must come from some sort of blending of free competition with deliberate planning.

V. G. RAMAKRISHNA AYYAR.

A Survey of Motor-Bus Transportation in Six Districts of the Bombay Presidency—By D. R. Gadgil and L. V. Gogate. Pages 174. Price Rs. 2/8.

This is a timely publication setting forth the results of the fourth of the series of field investigations carried out under the auspices of the Gokhale Institute of Politics and Economics. The subject is very topical and the authors have collected considerable data of a very valuable nature. The Condition of the bus transport industry in the part of the Bombay Presidency under review is dealt with at length with the aid of statistics collected. But the authors however are greatly handicapped by the lack of adequate statistics on many vital points which would have thrown more light on the problem. The refusal of the railway authorities to furnish figures and facts, even of a non-confidential nature, is to be deplored by all students of the problem, as this has prevented the investigators from turning their attention to one of the most important aspects of the subject, viz., the question of rail-road competition. One important fact that emerges out of the study is the urgent necessity to carry out traffic surveys, as are done in countries like the U.S.A. and Great Britain. Such surveys, whether for purposes of the road engineers and road authorities, for purposes of allocating the fiscal burden, or for purposes of gauging the changes brought about in the peasant economy due to the advent of motor transport, are extremely helpful. The authors

have very interesting data, though not qualitative, regarding the competition of bullock carts with motor-buses in the sphere of goods traffic. They conclude that while it is clear that the motor-bus will continue to make inroads in the province of the bullock cart the process of displacement will be necessarily slow. The effect of this on the peasant economy is incidentally touched upon.

Dealing with the earning and profits of the bus transport industry, they are of opinion that it is a heavily overcrowded and considerably depressed one in which even the better organised units find it difficult to earn a profit and in which consequently the number of those who are forced to leave it after a few years' losses is very large. The root trouble with the industry, according to them, as it is run to-day is that all the relevant costs of the business are not brought home to the average owner. The authorities, however, make a strong plea for compulsory insurance of buses against risks, for " non-profitability could be a strong argument against increased taxation but never against proper steps for passenger safety." The chapter on " Road Finance and Motor Taxation " examines the defects that are inherent in the present system and some of the estimates of Mitchell and Kirkness are questioned. Interesting chapters follow, dealing with the organisation, co-ordination and control of transport illustrated by the regulations that are prevalent in other countries. A select bibliography closes this valuable study.

Though the study is not confined to a particular part of the Bombay District, it has interesting conclusions which are of a general application to the rest of India. We heartily recommend the monograph not only to all students of road finance, but to every transport organisation and every bus owner.

B. V. NARAYANASWAMY.

Conflicting Tendencies in Indian Economic Thought—By S. C. Dutt, M.A., B.L. Pages 225. Price Rs. 5.

The author discovers two trends, running opposite to each other, in the development of economic thought in India. One is a desire to return to mediæval economy and the other a passion for emulating the industrialised West. The author takes Mahatma Gandhi as the representative of the former school and Prof. Benoy Kumar Sarkar as the protagonist of the latter. The reason for the choice of the two people is set forth by the author as follows: " Gandhi does not profess to be an economist. But he has certain clear-cut and definite economic conceptions. And he has been trying his utmost with the whole weight of his personality to reconstruct the economic life of the country after his own heart...... The

other side has its spokesmen too. Of the many Indian economists in the country to-day who are trying to offer a guidance to the economic activities of this kind one of the most prominent is Benoy Kumar Sarkar." The views of Gandhi as expressed in *Young India* and some of his books and speeches are first set forth and then follows an examination of Prof. Sarkar's writings in English, Bengali, French, German and Italian. The chapter on "Thirty-five years of Indian economic thought" is in the main a valuable bibliography of all publications in Economics from 1898 to 1932 and the author makes some critical observations. "Up till now the books bearing on Indian Economics as a whole or on some of its particular branches . . . have been mainly in the nature of convenient summaries of Government Reports...... Perhaps this methodology is on the verge of exhaustion . . . ." There are some interesting passages which have a special application to Bengalee students. The subject is very lucidly dealt with.

B. V. NARAYANASWAMY.

The Indian Sugar Industry; Its Past, Present and Future—By M. P. Gandhi, M.A. Pages 286. Price Rs. 5/8.

The sugar industry in India has assumed an importance that has far-reaching national and international consequences. A scientific monograph on the subject is a welcome thing. Mr. Gandhi has considered in detail the arguments for and against such vital questions as the fixation of the price of cane, allocation of zones and licensing of factories and his conclusions are throughout unbiassed. The study of utilisation of the by-products, molasses and bagasse takes up a good part of the treatise and the possibility of manufacture of power, alcohol and paper on a commercial scale with State help is discussed at length. The defects in our present system of cane cultivation are examined at length and suitable remedies are suggested. The need for the cane growers to organise themselves on co-operative lines and the importance of carrying on technological and chemical research are emphasised. The welfare of the sugar industry in relation to problems of transport is separately dealt with and there is a general review of the world trade and manufacture of sugar up to the year 1932-33. Mr. Gandhi has utilized all the available material on the subject and has produced an able work. We have no doubt it will be useful to all those interested in the industrial development of India.

B. V. NARAYANASWAMY.

Decay of Indian Industries—By Mr. P. R. Ramachandra Rao. Taraporevala Sons and Co., Bombay. Price Rs. 2.

This is a monograph dealing mainly with the causes that made for the decay of Indian industries. A historical retrospect of some of the principal Indian industries in Ancient India like cotton, wool, carpet-weaving, sericulture, iron and steel, enamelling and glass-making, sugar manufacturing and ship-building, based mainly on the well-known writings of authors like R. C. Dutt and Major Basu is followed by an account of the causes that led to the decay of these industries. We may not be able to see eye to eye with the author in the relative importance he assigns to the series of circumstances that deepened the gloom which fell on our industries even as early as the Mughal days. For example, is it not true that the Industrial Revolution was a factor that contributed towards this end and that it has never been over-emphasised ? That it was the prime cause for the decay in the textile industry may be seen when it is remembered that the competition of machine-made cloths in the nineteenth century began first in the export markets of India. Nor should the vexatious treatment of the weavers by the Company blind us to the fact that it was a huge employer with an annual investment mounting to several lakhs in the Presidency of Madras alone, and that when the Charter Act of 1813 broke its monopoly resulting in the gradual cessation of investment, particularly in the south of India, there followed a fell slump and heavy unemployment. Four-fifths of the monograph is devoted mainly to these two aspects of the question. The rest is given to " Prospects," or a theoretical plea for a Gandhian structure of economic society. This part is topical, but we wonder what conviction it is going to carry with people, when even leaders of Congress are divided as to the permanent utility of the *Charka*. The book is of much value to those engaged in propaganda work.

B. V. NARAYANASWAMY.

Tāṇḍava Lakṣaṇam or The Fundamentals of Ancient Hindu Dancing.—By B. V. Narayanaswami Naidu, M.A., PH.D., B.COM., BAR-AT-LAW. 1936. 10″ × 7½″. Pages 178. Plates 50. Figures 252. G. S. Press, Madras. Rs. 12.

This work is a fine attempt to illustrate Hindu dancing with the aid of the sculptured dance poses in the temple of the Lord of Dance in Chidambaram. In a short introductory chapter, Dr. Narayanaswami and his collaborators, Messrs. Srinivasalu and Venkata Rangayya, discuss the age of Bharata and the genesis of Nāṭya, describe the temple of Naṭarāja and the sculptured panels in it, and offer some preliminary remarks on

Abhinaya. Chapter II is a translation of the fourth Adhyāya of Bharata, bearing on the sculptured poses in the temple ; the Sanskrit text of this chapter is printed in Appendix A. Chapter III is a glossary of the technical terms employed by Bharata in this difficult adhyāya of his work. Appendix B reproduces the section of the now rare Madras Epigraphical Report for 1914 where the sculptures of the Naṭarāja temple were first noticed in some detail. Six other Appendices follow among which those on Bharata's Theatre and on some ancient authors and treatises on Dancing call for special mention. The book concludes with a short but useful bibliography, an index of the poses and a brief general Index.

The authors who have undertaken and completed this labour of love deserve to be congratulated warmly on their achievement. They have earned the gratitude of all lovers and students of South Indian Art, who will find this work invaluable as a book for constant reference and a basis for further studies on this difficult and interesting branch of aesthetics. The printers, Messrs. G. S. Press, deserve great praise for the excellent technique of production which is fully adequate to the nature of the subject.

K. A. N.

Daśopaniṣads—with the commentary of Śrī Upaniṣad-Brahma-Yogin, Vol. II. Edited by the Pandits of the Adyar Library under the supervision of Prof. C. Kunhan Raja, M.A., D.PHIL. (OXON). Published in 1936, for the Theosophical Society, at the Vasanta Press, Adyar.

This handy volume, comprising the Chāndogya and the Bṛhadāraṇyaka Upaniṣads, with the commentary of Śrī *Upaniṣad-Brahma-Yogin* of South India, completes the series of the Adyar Theosophical Society publications of the ' One hundred and eight Upaniṣads ', together with the commentary of *Upaniṣad-Brahma-Yogin.* Several years ago, Dr. Schrader proposed to bring out critical editions of the 108 Upaniṣads on up-to-date lines. Though it has not been possible for the Adyar Library to follow Dr. Schrader's plan and fulfil his object, for want of funds, it is gratifying to note that the manuscript material in the Adyar Library, contained in the commentaries of *Upaniṣad-Brahma-Yogin,* has been made available to the world of Sanskrit scholars in handy volumes printed in Devanāgarī script. These volumes, together with the carefully compiled indexes and tables of contents, are expected to afford ample facilities for scholars who may undertake to carry on research in the sphere of Upaniṣadic literature. The commentator—Śrī Upaniṣad-Brahma-Yogin —was a *Sannyāsin* of South India, who flourished in recent times and who devoted his life completely to the study and exposition of the 108 Upaniṣads ; and the significance of his appellation is borne out by his

works. His commentaries are direct, simple and free from polemical digressions and they are of great value in understanding the meaning of the text of the 108 Upaniṣads. The get-up and typographical execution of the volume under review are worthy of the reputation of the Vasanta Press.

S. KUPPUSWAMI SASTRI.

Prolegomena to the New Reforms by S. K. Dutta, B.A. (CAL.), B.Sc.ECON. (LOND.), BAR-AT-LAW. Pages 134. Price Rs. 3. Foreign 4s. 6d.

In this small book the author gives a clear exposition of the Government of India Act, 1935. The Act taken by itself constitutes perhaps the most complicated piece of constitutional legislation so far known, and the general reader, as well as the college student, will be thankful to a trustworthy guide who offers to tell him succinctly what the main provisions of the Act are, and how we may expect them to function, and the author of this booklet supplies a real want with remarkable success. His mood is one of quiet optimism. He is not unaware of the many defects and shortcomings of the measure, or of the extent to which it falls short of Dominion Status, and he is no uncritical admirer of the Reforms of 1919 or of 1935. His comments, always brief, are often shrewd and far-reaching, as for instance on the constitutional position of the States (p. 15), the working of Dyarchy (p. 22), Indianisation of the Army (p. 23), Safeguards (p. 43), Privileges of the Legislature (p. 69), Rule of Law (p. 115), Declaration of Rights (p. 118) and so on. Education of the masses, high character and sagacity among the political leaders, and a well-disciplined party system calculated to resist the growing multiplication of parties are, according to the author, the chief desiderata for our getting the best even out of these reforms. The book is very well printed and remarkably free from printing mistakes.

K. A. N.